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ABSTRACT

This document contains 127 papers and innovative sessions and three poster sessions presented at a conference on human resource development (HRD). A program overview, author index, keyword index, and a CD-ROM version of the document are also included. The papers are grouped by the conference's 44 symposiums, which were devoted to the following topics: action learning; integrating university and corporate learning with work; HRD in Asia; distance learning; HRD in Latin America; trust in organizations; global team development; coaching and knowledge transfer; ethics and integrity in HRD; organization values; issues in evaluation; global knowledge transfer issues; leadership development; transfer of learning; HRD theory;

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organizational development; the role of HRD in women's career development; knowledge management and human capital; organizational change; university programs; theory building; human resource management issues; workplace learning; managerial performance issues; improving learning with technology; professional development; informal learning; emotions and behavior in the workplace; evaluation in HRD; organizational enhancement; workplace learning issues; managing the HRD function; career development issues; research issues in HRD; adult learning; learning organizations; measurement and research tools; assessment and evaluation modeling; issues in training; workplace issues in human resources; executive and management development; HRD and small manufacturers; motivation for improving performance; and redefining HRD. Most papers include substantial bibliographies. (MN)

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Oscar A. Aliaga, Editor

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2001 CONFERENCE PROCEEDINGS

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PROCEEDINGS EDITOR

OSCAR A. ALIAGA
UNIVERSITY OF MINNESOTA

AHRD Academy of Human Resource Development

Proceedings

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Tulsa, Oklahoma

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Volume 1

OSCAR A. ALIAGA
Editor

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Proceedings

AHRD 2001 CONFERENCE

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From the Editor

I am pleased to welcome you to Tulsa and to this year's Conference of the Academy of Human Resource Development! With great satisfaction, I proudly offer you the AHRD 2001 Conference Proceedings. It reflects the excellent work of all scholars and professionals who continue to contribute to the development of the profession.

As in the past, this years' Proceedings represent a wide variety of topics in many areas in the over 140 papers presented at this Conference. Also, we continue to be fortunate with the commitment from scholars from over the world—all five continents are represented in the Conference! These two facts certainly ensure stimulation and inspiration to our dialogue and debate.

I wish you a productive and enriching participation in this Conference, and I hope these Proceedings achieve the goal of disseminating the emerging work of the many professionals that have come to the Conference.

Using the Proceedings

1. This year's proceedings are divided in *two volumes, following the Conference program*. Volume 1 covers all symposia through Friday. Volume 2 covers the remaining days.

2. The *Table of Contents* provided at the beginning of each volume covers the contents for both volumes. And so do the Author Index and Keyword Index included at the end of each volume.

3. A *Program Overview* is also included in both volumes. The full version of the Conference Program is printed as a separate document.

4. Papers are grouped by *symposium number*. The symposium number has been used for referencing the Author and Keyword indices.

5. As in recent years, we have also a CD-Rom version of the Proceedings available to all Conference participants. Instructions to use the CD-Rom are provided in the same CD.

I want to thank Toby Egan, Sonja Irlbeck, Janet Polach, Lisa Weinberger, and Richard Herling from the University of Minnesota for their help in making the Proceedings look professional and consistent. But my special thanks go to all authors, for contributing their papers. Enjoy these outstanding papers and your stay in Tulsa!

Oscar Aliaga

Oscar A. Aliaga
University of Minnesota
Editor

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Dear HRD Professional:

The Academy of Human Resource Development strives toward a vision of ***"Leading the Human Resource Development Profession Through Research."*** A key component in achieving this vision is our annual research conference, which convenes scholars, students and reflective practitioners from business, government, non-profits, the military, and the academic sector to discuss research and forge relationships that foster cooperation and collaboration. As the world grows increasingly smaller, we are particularly interested in extending that cooperation and collaboration to the international community. Accordingly, we extend a special invitation to international scholars, students and reflective practitioners to submit manuscripts and attend the conference.

We urge every HRD scholar and professional to give the call for papers the widest possible dissemination. In addition to giving the hard copy of the call for papers to an interested associate, you may refer those interested to the EVENTS AND CONFERENCES section of the AHRD website www.ahrd.org or ask them to contact the AHRD office.

We are also interested in expanding the number and quality of the innovative and poster sessions and, towards that end, have provided additional information on various formats, submission requirements and acceptance criteria as part of this call for papers. Finally, in an effort to expand and refresh our preconference offerings, we have gone to a proposal format for those sessions, also. We urge you to be creative and innovative in putting together either half-day or full-day sessions that would attract the interest of the HRD research and reflective practitioner community.

We look forward to receiving a wide variety of submissions and proposals from the worldwide community of HRD scholars, students and reflective practitioners and making this Tenth annual research conference the best we have ever had.

Thank you for sharing our vision, and I look forward to seeing you in Honolulu, Hawaii, February 27 - March 3, 2002.

Best Regards,

Gary N. McLean

Gary N. McLean
President
Academy of Human Resource Development

AHRD

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Conference City

Honolulu, Hawaii, the capitol city, has much to offer with respect to museums, restaurants, activities, shopping and recreation. You can choose culture, sports, nature or the beach during the day and then a quiet dinner at one of the many fine local restaurants or sample the nightlife along Waikiki beach. However you choose, Honolulu is your ultimate vacation or business destination.

Hawaii Convention and Visitors Bureau
http://www.visit.hawaii.org/

Contact Information

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Academy of Human Resource Development ATTN: Conference Chair P. O. Box 25113 Baton Rouge, Louisiana 70894-5113	Pacific Resources for Education and Learning Ali'i Place 25th Floor1099 Alakea Street Honolulu, Hawaii 96813-4513	Radisson Hotel Waikiki Prince Kuhio 2500 Kuhio Avenue Honolulu, Hawaii 96815-3696
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Academy of Human Resource Development
International Research Conference 2002

Call for Papers

Honolulu, Hawaii, USA
February 27, 2002 - March 3, 2002
Hosted by Pacific Resources for Education and Learning

The Academy of HRD, an international organization having the mission of encouraging the systematic study of human resource development theories, processes, and practices, encourages you to submit manuscripts for the 2002 International Research Conference.

- All scholars interested in HRD are invited to submit manuscripts for consideration. The conference is attended by researchers and students from the areas of HRD, business, psychology, education, economics, sociology, technology, and communication. In addition, HRD researchers and reflective practitioners from business, industry, and government participate fully in the conference.
- Manuscripts may be submitted in four categories: Research and Theory Symposium, Innovative Session, Poster and Research in Progress. All Research and Theory and Poster Manuscripts will be blind reviewed and should be of new unpublished research. Research in Progress manuscripts will be blind reviewed, but will not be published in the proceedings. Manuscripts accepted for the conference program will be published in the conference proceedings and may be published elsewhere following the conference.
- **At least one author for each submission must register by January 7, 2002 for the submission to be scheduled for the program.**

Research and Theory Papers

Manuscript Requirements

Full manuscripts (14-22 pages) are required. Submissions should be new and unpublished. Research papers, as appropriate to the methodology used, should contain the following elements:

1. Title
2. Problem statement
2. Theoretical framework
3. Research questions or propositions
4. Methodology and/or research design with limitations
5. Results and findings
6. Conclusions and recommendations
7. How this research contributes to new knowledge in HRD

AHRD also welcomes manuscripts presenting new scholarly theory, models, conceptual analyses, literature reviews, and case studies. While these papers may not yet offer results (#5 above), they must otherwise follow the above requirements as closely as possible. See page 4 for detailed manuscript requirements.

Innovative Session Proposals

Proposal Requirements

Innovative session proposals may be of variable length (maximum 22 pages). An innovative session is designed to present new and innovative HRD work through creative, interactive presentation formats that do not fit within the regular research and theory symposium process. The following criteria MUST be addressed in the proposal:

1. Title
2. Session Description
3. Presenters/Panelists
4. Purpose
5. Goals
6. Content of session with evidence that it is new, is innovative, addresses research or scholarship, and makes a substantive contribution to HRD knowledge.
7. Description of format, style, and a timetable for the presentation that is to be innovative, intellectually stimulating, generative of a high level of scholarly dialogue, and participative by both presenters and audience.
8. See page 5 for additional information on innovative sessions.

Posters

Manuscript Requirements

Manuscripts (up to 12 pages including the poster miniatures) are required. Visual representations of the posters can enhance the clarity of the research and help us view the field of HRD in new and different ways. Posters are not a substitute for a scholarly paper. Postess will remain up throughout the conference, and a session will be scheduled to allow interaction between the author(s) and conference participants. The following criteria MUST be addressed in the manuscript:

1. Title
2. Theoretical Framework
3. Substantive contribution to HRD knowledge.
4. Reduced copies of the posters.
5. Accepted posters will have no more than two, professional appearing, 2' x 3' poster boards that must be readable from a distance of six feet.
6. See page 4 for detailed poster manuscript requirements.

Academy of Human Resource Development
International Research Conference 2002

Research and Theory or Poster Submission Requirements

Full Manuscripts are required for consideration and manuscripts must meet the following criteria:

1) **CLEARLY MARK THE PAPER'S CATEGORY ON BOTH THE COVER SHEET AND IN THE TITLE:** *Research and Theory, Innovative, Poster or Research in Progress*
2) Must not exceed the page limits specified, Page limits include everything except the cover sheet (body of paper, figures, tables and references). Manuscripts that exceed the page limits will be returned. FINAL PAPERS WILL BE LIMITED TO EIGHT PAGES WITH 10 POINT, SINGLE SPACED TYPE, INCLUDING REFERENCES, FIGURES AND TABLES.
3) Blind review ready
   a. Cover sheet contains the following information for each author, abstract, three descriptive keywords and primary research methodology
      - Full Name
      - Complete Address
      - Work phone
      - Fax
      - Email

   b. No author identification in body, header or footer of manuscript
4) Specific Requirements:
   a) First manuscript page contains abstract, three descriptive keywords and primary research methodology immediately below title
   b) 12 point type
   c) Double spaced
   d) 1" margins all around
   e) Pages numbered
5) References must adhere to APA Style Guide (4th Edition)
6) All communication with authors will be via Email. Manuscript submissions MUST INCLUDE AN E-MAIL ADDRESS FOR ALL AUTHORS.
7) All deadlines are firm. Exceptions will be made only for true emergencies or extraordinary circumstances.
8) All final manuscripts not forwarded by Email must include a disk copy in MS Word 6.0 (or later) format on an IBM formatted disk. If the manuscript is not in MS Word, the email should specify the word processing format.
9) Scheduling of sessions: Individuals are expected to participate at the time scheduled by the Program Committee. If there are special time constraints, please note them on the manuscript Cover Sheet. The Program Committee will consider such constraints when assembling the schedule, but makes no guarantee that authors will be scheduled according to these requests.

Submission Deadlines

1. Manuscripts:	Monday, October 8, 2001
2. Decision Notification:	Monday, December 3, 2001
3. Final Papers Due to Proceedings Editor:	January 7, 2002

Submission Addresses

Email manuscript submission is expected. If you have trouble submitting the manuscript via email, contact the AHRD office and we will work with you. Do not send duplicate manuscripts.	office@ahrd.org

If you need the mailing or physical address of AHRD, you can find it on the website under the ABOUT section or refer to page 2 of this document.

Academy of Human Resource Development
International Research Conference 2002

Innovative Session Proposals

Honolulu, Hawaii, USA
February 27, 2002 - March 3, 2002
Hosted by Pacific Resources for Education and Learning

The Academy encourages you to submit **Innovative Session Proposals** for the 2002 International Research Conference.

- Innovative proposals use creative or alternative presentation techniques, address new or emerging topics or combine these two requirements.
- The formats described below are offered as suggestions only. The intent of these examples is to be useful to those considering alternatives to the standard paper and symposium session formats. Preference will be given to proposals with a research or theoretical basis.
    - Debate. The debate format can be an effective way to present two opposing views about a topic. One structure for a debate is to have a moderator and two, two-person teams. The debate begins with the moderator stating a position. One team then presents arguments that affirm the proposition and the other team presents arguments against the proposition. Each team member has a fixed amount of time (e.g., 10 minutes) to present arguments. Time for rebuttal can be incorporated into the session and/or a discussant can sum up the main points of the session. When submitting a debate proposal, be sure to include a statement of the proposition to be debated and descriptions of the major points likely to be argued by each side.
    - Panel Discussion. In a panel discussion, the chairperson plays a very active role, serving as a moderator who asks questions of the panelists and ensures that all panelists (three to six people) have the opportunity to speak. Diversity among panelists is important to the success of the session. Further, all panel discussion members must recognize the need for advance preparation. Panelists and chair do not prepare papers. They make brief introductory remarks before engaging in ad hoc give and take for which they may have prepared themselves but which cannot be predicted or entirely controlled. (A chair skilled in discussion management is essential.) Panel discussions should generate spontaneous interaction among participants and between participants and the audience. A panel discussion proposal should describe the questions that will be addressed by the panel, the underlying issues or themes to be discussed, and the structure or format of the session.
    - Practitioner Forum. A Practitioner Forum provides an opportunity for HRD professionals to discuss challenges in the work environment and innovative solutions that are linked to HRD research issues. Each forum is devoted to a single topic. A chair introduces the session, three or four presenters take approximately 10 minutes each to discuss applied research and practice issues, and audience members spend the remaining time interacting with presenters and each other, offering their own ideas about applied research and practice. Practitioner Forum topics are welcome on any "cutting edge" topic. Special effort should be made to link theory and practice.

OTHER CREATIVE FORMATS ARE STRONGLY ENCOURAGED

Requirements for Innovative Session Proposals

1. The proposal is clearly marked - INNOVATIVE SESSION - on the cover sheet and in the title.
2. The proposal contains a theoretical framework.
3. The proposal contains an agenda.
4. The proposal is blind review ready.
5. The proposal will meet the same requirements as #4-10 in Research and Theory submissions as outlined on page 4.

Academy of Human Resource Development
International Research Conference 2002

Call for Preconference Proposals

Honolulu, Hawaii, USA
February 27, 2002 - March 3, 2002
Hosted by Pacific Resources for Education and Learning

The Academy of Human Resource Development, an international organization having the mission of encouraging the systematic study of human resource development theories, processes, and practices, encourages submission of Preconference Proposals for the 2002 International Research Conference. The audience includes HRD students, both junior and senior faculty researchers, and practitioners within and outside the research community.

The AHRD Conference Planning Committee seeks dynamic learning experiences that would be of significant interest to HRD researchers and reflective practitioners. Preconference sessions may be problem oriented, be professional-development oriented, focus on knowledge transmission, address recent methodological and substantive developments in HRD research or serve as organizing sessions for special interest groups exploring an HRD related subtopic in depth. AHRD welcomes sessions that extend beyond traditional research paradigms and methods. AHRD especially encourages offerings that merge research and practice.

- AHRD solicits proposals for full-day preconference sessions that will run before the Annual Conference.
- AHRD solicits proposals for half-day seminars (4-hour) that will run before the Annual Conference.

Preconference Proposal Requirements

1. Proposals are required to contain the following elements:
    a. Title
    b. Committee or Panel Members
    c. Purpose including a statement about how the session advances the mission and vision of the Academy
    d. Constituency or target audience
    e. Specific goals
    f. Draft agenda
2. Preconference proposals will not be blind reviewed but will be judged on their contribution to advancing the vision of the Academy.
3. An example proposal can be found on the AHRD website <www.ahrd.org> under EVENTS AND CONFERENCES.
4. No budgets are allocated by AHRD for preconferences, except for refreshment breaks.
5. All preconference attendees are expected to pay the fee including invited speakers.
6. No preconference is guaranteed approval from one year to the next.

Submission Requirements

1. Cover sheet should contain full identification and contact information for ***ALL*** organizing committee members.
2. All communication will be via Email.
3. Submissions MUST INCLUDE AN E-MAIL ADDRESS FOR ALL ORGANIZERS, if possible, but at least one CONTACT who will then receive all communications.
4. All deadlines are firm. Exceptions will be made only for true emergencies or extraordinary circumstances.

Submission Deadlines

1. Preconference Proposals:	September 1, 2001
2. Decision Notification:	November 15, 2001

Academy of Human Resource Development
International Research Conference 2002

MEMBERSHIP APPLICATION

Full Name:
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Email Address:

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Advisor (Required for Student Membership):
Research Interest 1:
Research Interest 2:
Research Interest 3:
Preferred Research Method:
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Year Completed:
Dissertation Title:

Date of Birth (Optional):
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☐ Regular Membership (155.00 per year)
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Charge My Credit Card
☐ Visa Expiration Date____
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____
Number

____
Signature

Academy of Human Resource Development
International Research Conference 2002

Academy of Human Resource Development

VISION

To Lead the Human Resource Development Profession through Research

MISSION

The Academy was formed to encourage systematic study of human resource development theories, processes, and practices, to disseminate information about HRD, to encourage the application of HRD research findings, and to provide opportunities for social interaction among individuals with scholarly and professional interests in HRD from multiple disciplines and from across the globe.

PUBLICATIONS

AHRD in cooperation with our publishing partners, provides a full range of scholarly and professional publications:

- *Human Resource Development Quarterly*, our research journal
- *Human Resource Development International*, our new international journal
- *Advances in Developing Human Resources*, a quarterly monograph series
- *Human Resource Development Review* (2002, our new theory journal
- *AHRD Standards on Ethics and Integrity* in Human Resource Development
- *Human Resource Development Research Handbook*, a book for both researchers and practitioners
- Blind Refereed Annual Conference Proceedings published annually in conjunction with the annual research conference

MEMBERSHIP BENEFITS

AHRD membership includes the following

1. Being a member of the only global organization dedicated to advancing the HRD profession through research
2. Subscription to all four AHRD sponsored scholarly journals:
   - Human Resource Development Quarterly
   - Human Resource Development International
   - Advances in Developing Human Resources
   - Human Resource Development Review
3. Copy of AHRD Standards on Ethics and Integrity
4. Subscription to the Forum, the Academy newsletter
5. Subscription to the Academy Listserv, for timely professional and career information annual
6. Discount on annual conference participation
7. Research conference with full proceedings of research papers (1200+) pages
8. Research partnering, funding, and publishing opportunities

ANNUAL RESEARCH CONFERENCE

AHRD holds an annual research conference in the early spring of each year. Pacific Resources for Learning and Education will host the 2002 conference in Honolulu, Hawaii, USA. Kitty Kautzer will chair the 2002 conference host committee.

AWARDS PROGRAM

AHRD recognizes professional excellence in the HRD profession through its awards program, including:
HRD Scholar Hall of Fame
Outstanding HRD Scholar Award
Richard A. Swanson Research Excellence Award
Outstanding Human Resource Development International Article
Malcolm S. Knowles Dissertation Award
HRD Book of the Year Award
AHRD Outstanding Academic Program
"Cutting Edge" Top Ten Conference Proceedings Papers

2001 CONFERENCE OVERVIEW
Adams Mark Hotel ◆ Tulsa, Oklahoma
February 28 - March 4, 2001

Academy of Human Resource Development

Exploring the Frontiers of Human Resource Development

Thursday, March 1	Time	Friday, March 2	Saturday, March 3	Sunday, March 4
Preconference 10:00 AM, Wednesday, February 28, 2001 through 12:00, Thursday, March 1, 2001	7:00 AM to 8:15 AM	Food-N-Thought Discussions (3), Join In! → HRDI Management Board Breakfast and Meeting *EXHIBITORS OPEN*	Food-N-Thought Discussions (3), Join In! → HRDI Editorial Board Breakfast and Meeting	Food-N-Thought Discussions (3), Join In! → AHRD Board Breakfast
→ Action Learning - IFAL → Continuing Professional Education → Globalization in HRD → Technology in HRD → HRD Theory and Theory Building	8:30 AM to 10:00 AM	*--Keynote Presentation--* **Hans Meeder** **Senior Vice President** **National Business Alliance**	*--Keynote Presentation--* **Thomas F. J. Pipal** **Director, Training and Development** **Worldcom**	SYMPOSIUM 1. Measurement and Research Tools 2. Assessment and Evaluation Modeling 3. Training Effectiveness Issues 4. Workplace Issues in Human Resources 5. Executive and Management Development 6. Innovative Session - Theory Challenge 7. Research Forum 3
Conference Registration Opens	10:30 AM to 12:00	SYMPOSIUM 1. Action Learning 2. Integrating University and Corporate Learning 3. HRD in Asia 4. The Adult Learner 5. HRD in Latin America 6. Trust in Organizations 7. Innovative Session - Performance on Multiple Levels 8. Research Forum 1	SYMPOSIUM 1. University Programs 2. Theory Building 3. Human Resource Management Issues 4. HRD and Small Manufacturers 5. Managerial Performance Issues 6. Improving Learning with Technology 7. Innovative Session - Increasing Capacity to Learn in Learning Organizations 8. Innovative Session - Layers of Learning	SYMPOSIUM 1. Organizational Change 2. Motivation for Improving Performance 3. Redefining HRD 4. Research Forum 4 5. Special Session - Convergence of Work and Learning
AHRD Board of Directors will meet Tuesday, February 27 and Wednesday, February 28 at the Williams Center 2:00-5:00 Local Tours	12:00 to 1:30 PM	Food-N-Thought Discussions (3) - Join In! → Human Resource Development Review Editorial Board Meeting	Food-N-Thought Discussions (3) - Join In! → Joint AHRD Board and ASTD Research Committee Meeting and Lunch → Advances Editorial Board Meeting and Lunch	AHRD Business Meeting for all Academy members
3:00pm Academic Showcase hosted by Oklahoma State University 5:00pm Student Reception 6:00pm Grand Reception & Conference Overview 7:00pm HRD Town Forum HRD Violates its Integrity When it Assists An Organization in Going Global Jamie Callahan Darren Short	1:30 PM to 3:00 PM	SYMPOSIUM 1. Global Team Development 2. Coaching and Knowledge Transfer 3. Ethics and Integrity in HRD 4. Organization Values 5. Issues in Evaluation 6. Global Knowledge Transfer Issues 7. Innovative Session - Reframing Continuing Professional Education 8. Special Session - AHRD Technology Committee	SYMPOSIUM 1. Professional Development 2. Informal Learning 3. Emotions and Behavior in the Workplace 4. Evaluation in HRD 5. Organization Enhancement 6. Research Forum 2 7. Innovative Session - Linking Organizational Culture and Performance 8. Special Session - Asia Chapter Meeting 9. Poster Presentations	Lunch and hotel checkout
	3:30 PM to 5:00 PM	SYMPOSIUM 1. Leadership Development 2. Transfer of Learning 3. HRD Theory 4. Organization Development 5. Role of HRD in Women's Career Development 6. Knowledge Management and Intellectual Capital 7. Workplace Learning 8. Innovative Session - Mobilizing Human Development	SYMPOSIUM 1. Workplace Training Issues 2. Managing the HRD Function 3. Career Development Issues 4. Research Issues in HRD 5. Distance Learning 6. Learning Organizations 7. Innovative Session - Action Research in Organizational Change 8. AHRD Journals	
9:00pm HRDI Editorial Team Meeting	Evening Events	FREE EVENING 6:00pm HRDQ Editorial Board Meeting and Dinner 6:00pm Global 100 Meeting and Dinner	6:00-9:00pm President's Dinner & Awards Banquet for all conference attendees (included in registration)	

CONFERENCE PAPERS

Action Learning: Case Studies of Most Valued Learning and Application

Suzanne D. Butterfield
Brenau University

The purpose of this qualitative study was to document what action learners believed to be their most valued learning and application. Longitudinal data were collected from document analysis and first-line consulting managers who participated in an action learning experience. The most prevalent learning and application focused on provocative questioning to solve problems, coach and counsel for performance improvement, and accomplish work in general.

Keywords: Action Learning, Transfer of Learning, Management Development

Concern about the transfer of formal training among HRD professionals is not new. In 1988, Baldwin and Ford reported that not more than 10% of training expenditures result in transfer of training to the job. Since then, several reports have been published regarding the demise of training transfer even as formal organizational training budgets have increased (Gordon, 1998). One way to promote learning and its application is to incorporate elements of actual work experiences into the learning experience. Action learning does this while simultaneously developing fundamental thinking and learning strategies that can be employed as a natural way to conduct oneself, not just in one specific effort.

Several problems arise, however, in an action learning experience. The first is its learning and application are difficult to observe and measure. The second is that human resource developers cannot predetermine or control new thinking strategies, so learning objectives are difficult to identify and design into the training. Extensive time and effort might elapse before linkage is realized among action learning and individual, group, and organizational development. As a result, action learning may be easily discounted even though it has been seen as a bridge to link learning, professional development, systems thinking, and performance outcomes.

Theoretical Framework

Action Learning. The theoretical framework for this study is action learning as proferred by Reginald Revans (1981, 1982). This was chosen as the theoretical framework for this study instead of other models because it is considered seminal work in the field. Revans proposed that learning is a function of conventional knowledge, insightful questioning, and experimentation. The basis for his propositions is that people learn best while trying to resolve an unfamiliar, intractable problem; and that people learn best while interacting with co-learners. Learning occurs from direct engagement upon the learner's existing problem versus being directed by others to participate in training or receiving instruction about some distant construct. Other educators have reiterated that adults are more interested and motivated to learn about something to which they can relate and about which they can do something (Marsick, 1987; Marsick, 1991) --hence, the learner's problem rooted in the workplace.

Furthermore, learning occurs collaboratively in a learning group that meets on a regular basis over an extended period of time. Co-learners bring a range of insight and experience to problem resolution, individual introspection, individual learning, *and* social construction of meaning and knowledge. What makes action learning unique is its reliance on questioning insight. Insightful questions are those questions, of self and to others, that reexamine underlying assumptions, creativity, breakthrough thinking, and experimentation.

Other types of learning that have been identified from an action learning experience are systems thinking (global operations perspective), processing (conflict management, building trust, teamwork), and communication skills (ARL™, 1996). Marsick (1987) found that an action learning experience impacted action learners' abilities to expand their perspectives and frames of reference, to redefine problems, actively experiment, and critically reflect. Systems thinking (global operations perspective), processing (conflict management, building trust, teamwork), and communication skills have been significant outcomes from such an experience (ARL™, 1996). An action learning experience can impact learners' abilities to expand their perspectives and frames of reference, to redefine problems, actively experiment, and critically reflect (Marsick, 1987). Butterfield, Gold, and Willis (1998) found that action

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learning had to become "a way of personal way to life--almost a value before it could be effectively translated to the workplace according to a majority of the participants" (p. 495). These results showed a "new awareness of the impact of reactions and interaction, assumptions, ethics, and the liberation from canned or programmed viewpoints and problem solving (p. 494). These same participants believed that they could immediately create informal action learning environments within their work groups without having the structure of a formalized action learning group process. These studies have generally shown that action learning is a learning strategy that can be used when rapid changes in the organization adversely affect the applicability of and the learning from traditional training with predefined outcomes. Action learners are more likely to develop the personal strength and thinking strategies to continuously question their own and others' perspectives and what they think they know. This results in continuous, self-directed informal learning.

Qualitative Case Study Methodology

A qualitative case study is an appropriate methodology to study what individuals learn in action learning and how they apply this learning (Balog, 1995; Stake, 1994; Yin, 1989). This better captures the participants' perceptions as they are constructed over time in their own and in rapidly changing environments. The case study methodology allowed these participants to surface issues important to them--it was exploratory and emergent in nature (Lincoln & Guba, 1985). The research questions in this study were:

1. What do action learners believe to be their most valuable learning in an action learning experience and why was this important to them?
2. Across cases, what appears to be the most prevalent learning and application as a result of the action learning experiences?

Sample. This was a purposive sample composed of first-line managers drawn from multiple action learning groups. Each participant was a case. The participants' worked for the same employer--a multinational professional services firm rooted in providing tax, accounting, and management consulting services. The firm delivers a variety of services to clients to solve critical problems by implementing highly valued changes in their business strategies and operations. The participants had been in their current positions less than two years, although most of them had several years of consulting experience. They typically provided advisory or system implementation services to clients external to their own organizations. When first promoted, these managers typically manage consultants or senior consultants on a project; however, they may also perform in individual contributor roles.

The action learning groups were part of a management development program--the purpose of which was to improve management and project performance, management retention, and client relationships. This specific study was initially undertaken to determine the effectiveness of using action learning as a management development intervention. The program started with a two-day kickoff which communicated that the participants were going to learn through a problem challenge, define their role in creating value, build capacity for managerial judgment, and improve tactical leadership skills while they worked toward personal development goals. The kickoff commenced with executive presentations about leadership. The program leader then conducted general team building exercises, orientation to action learning as the developmental methodology, and mock action learning groups with company executives acting as problem owners.

Each action learning group had a learning coach, at least five colearners, with each colearners having a different background, developmental goals, problems, and client engagements. The groups met separately once a month for an entire day during the next three consecutive months. Each participant had dedicated airtime within which he or she presented the problem and the action already taken to resolve it. Colearners engaged in questioning to help the problem owner think about the problem differently and make progress toward problem resolution. Providing advice to the problem owner was discouraged. At the end of the third workshop, each group presented their findings and learnings to a group of company executives. Executive presentations of this type are considered to enhance participants' learning (Dilworth & Willis, 1997).

Data Collection and Analysis. The principal method of data collection in this study was audio taped telephone interviews with the participants and with the management development program leader. Telephone interviews were the best and most expeditious method of collecting data because the participants worked at client sites throughout the United States. There were 22 participants selected for the study. These 22 attended the kickoff and at least two of the workshops. Approximately four months after the end of the program, data were collected from 17 of the 22. The interviews focused on the individual's learning and its application in the workplace and the workshop. I analyzed interview transcripts for key ideas, critical incidents, key participant comments, discrepancies in responses, and reactions to questions that related to learning and application. I noted patterns or themes within each case and identified codes to represent them. These were categorized, defined, and labeled with properties and dimensions of frequency, degree, or intensity. The constant comparative analysis was used to search for statements or other indications of recurring behavior or events related to the research issues (Strauss & Corbin, 1994). I then generalized patterns across cases. One year after the first interview, I conducted a follow-up telephone interview with 10 of the 17. These 10 are later referred to as the "core" participants. The purpose of these interviews was to investigate what the participants believed to be key learning from their action learning experience after a longer period of time and how they had used action learning or other acquired knowledge. These interviews provided the opportunity to study the sustainability of action learning and its application. After these interviews, I conducted another transcript data analysis.

I also reviewed several documents relating to the company and the action learning module of the program. These documents included web site material; correspondence from the program leader to executive management regarding the program, research, results, action learning orientation material, and post-program feedback from the participants' and directors about the participants' behaviors and results. Three research associates examined some of the interview transcripts to provide independent analysis as a cross check to my own findings. Consequently, this study's internal validity was substantiated by the use of multiple methods of data collection such as questionnaires from a pilot study, interviews of participants and key informants, document review, the directly-related previous research in action learning, and the associates' analyses to develop “converging lines of inquiry” (Yin, 1989, p. 97) for triangulation purposes.

Limitations. One potential limitation that I, as the human-as-instrument, was continually concerned about was the influence of my own experience and expertise. The research associates provided a cross-check to my findings. To overcome the potential limitation of the small number of participants in this study, I compared their data to the data from my original research in which two other research associates also coded and analyzed the data. Another limitation was that these were telephone interviews. Face-to-face interviews might produce richer results if the researcher could address perceived discrepancies between verbal and non-verbal responses. In this case, I rechecked responses when I noticed changes in the participant's voice. I also reviewed the data more carefully when I listened to the audio tape after the interview if I noticed hesitancy or change of the participant's tone of voice or pattern of speech. To overcome the potential limitation of the self-report, I triangulated the data across cases and document review of data from participants' surveys immediately after the program and survey data from their managers.

Results and findings

In the first interviews, all of the participants were able to explicate what they did or did not learn. At the beginning of the reinterviews of the core group, most of the participants could not recall the action learning process. It appeared that the participants thought of action learning only as a formal group process they were meant to experience in the workshop--a technique. Consequently, they initially believed they either had not learned or had not applied the process. At some point during their reinterviews, all of the core group participants eventually identified either what they had learned or applied, or both as a result of their action learning experiences.

Questioning. The most prevalent learning occurred in how to engage in thought-provoking questioning--100% of the core group and 94% of all participants. The most valued learning of questioning was also the construct most applied. Almost all of the participants either learned or reinforced various skill levels of questioning. Half of the core group members (and nearly half of all participants) recognized that they had improved or reinforced their questioning skills. Others stated that the action learning process helped them improve the effectiveness of their questioning by prompting them to be more intentional, systematic, cogent, or generally more competent. Some of them felt that the questioning helped them determine solutions more quickly than if they had not engaged in it. Several participants cited the specific questions they learned or used to question others or themselves. The most cited questions were practiced in the action learning groups. Most of these questions are also fully anchored to action learning in the existing related literature. They were: "What would happen (if you tried...)?" "Now what?" "So what?" "Who cares and why do they care?" "What is getting in my way (of solving the problem)?" "Have you thought about...?" Generally, the participants felt the action learning questioning strategy was a way for them to think about their situations differently. They were not supposed to ask closed-ended questions. Instead they were expected to ask "the questions that went beyond the yes and no." The participants interpreted the purpose of the questions as helping them to "generate their own ideas."

The participants viewed action learning predominantly as a questioning technique. Three of the participants from the core group, however, described, either directly or indirectly, action learning as a way of thinking instead of being just a technique. All of the participants who indicated they learned new questioning approaches (16 of 17) engaged in it in the workplace less formally and more spontaneously than in the learning group. They tended to use questioning in their team or client committee meetings or in one-on-one settings. No participants indicated use of it in the formal sense of having designated airtime for questioning of the problem owner, reflection to think about what transpired during the questioning, or discussion of what was learned. Half of the core group participants indicated they engaged in questioning more cogently, systematically, or intentionally. The following is a discussion of how they reported using questioning.

Problem Solving. The most prevalent use of the questioning was to solve problems. The entire core group and nearly all 17 of the participants reported they used questioning to solve problems. This is not surprising because in action learning the problem is intentionally the mechanism by which learning occurs. Having a problem was a condition of participation in the management development program. Most of the participants, whether in a leadership or individual contributor role, felt they could engage in questioning with their team members to solve problems. Some recognized that using questioning helped them get through the emotions of a situation to directly address the root causes of problems. Two of the participants reported they probably would have resolved problems with others using their traditional methods; however, they recognized that the people with whom they were working seemed to enjoy the process more with the questioning approach. Five of the core group members engaged the client in questioning. Of these, three used it to enable the client to solve their own problems. The participants, however, appeared to be selective about when they engaged in questioning with the client. Some were concerned about the client's perceived value of their (expert) service if they performed in a less directive manner. All of them used it to investigate client expectations, perspectives, and project-specific information.

Coaching and Counseling for Performance Improvement. Almost three quarters of both the core and the total group indicated that using supportive questioning was more effective, collaborative, and developmental than providing advice or answers to improve subordinates' work performance. Two participants realized the value of using questioning to keep responsibility for solving a problem with the team member working an issue.
Related to this, a few of the participants recounted a sense of personal relief that the questioning freed them from always having to have just the right answer in a given situation. Three participants had opportunities to counsel poor performers in their work groups during the year between interviews. Two of them felt they experienced better results by integrating a questioning approach in the discussion.

Accomplishing Work. Approximately three quarters of the participants in the core and the total group indicated they used varying degrees of thought-provoking questions specifically to accomplish work. They reported they used questions primarily to 1) define project scope of work and related staff roles, 2) define and investigate environmental influences affecting project execution; solicit stakeholders' or team members' expectations, perspectives, or motives; or 3) assess risk. Some of these participants expressed concern about using the questioning with individuals who were not familiar with the process. Four participants indicated they learned to enable team members to solve their own problems and grow professionally. They learned that they could achieve this through questioning.

Self-Questioning. Well over half of both the core and total groups engaged in questioning themselves for various purposes, most of which fall under the category of "thinking through the process." More specifically, they engaged in self-questioning to identify key project stakeholders, needed or potential actions and related steps, and project goals. A few of the participants questioned themselves to determine how they were performing some action or in evaluating their own or others' experiences in both work and non-work situations. Few participants reported that they consciously engaged in self-questioning to discover their assumptions, preexisting theories, and feelings about their situations. The majority of the participants did not appear to engage in self-questioning to identify their assumptions or in questioning others about their assumptions or espoused theories. This would have been more representative of insightful questioning, a step beyond the prevailing thought-provoking questioning. This fact uncovers a large "personal growth area" which might be addressed by action learning designers and researchers in the future.

In general, there did not appear to be consistent application of the questioning over time. Five of the core group members admitted to or indicated varying degrees of relapse. Several contextual reasons were indicated for this relapse (i.e. compressed project schedules, time pressures, inordinate amount of work, mindset or expectations to be the expert, the role of expert/individual contributor instead of as a group or project leader, lack of management support and reinforcement, lack of consistent internal management and lack of consistent management with knowledge of action learning principles, lack of a safe group in which to engage in mutual learning, and the judging environment of the firm wherein they did not want to appear to be anything other than an expert).

From the document review, I found that the program leader reported generally positive results from the management development program. At the end of the program, program participants, on the average, said the program met their expectations (35%--more than expected, 60%--close to meeting expectations). The program participants who had been managers for less than six months experienced the most broadening or changing of their understanding about their perception of a managerial role. Eighty-five per cent of the total number of program participants reported that their understanding of their potential impact on business in a managerial role was broadened during the program and 35% in a highly significant way. Most of them thought the learning format helped them develop "translate that thinking into action." The workshop helped them to think differently about learning and relating it to experience. The results of this review indicated that many of the total number of program participants' expectations were met or exceeded in a number of ways. The first was obviously in the area of problem solving. Almost three quarters of them needed development in the area of identifying, discussing, and resolving problems, and they achieved it. The next two most needed areas for development with the highest achievement level were handling issues with teams and clients and preparing others to be successful. The fourth most needed area for development with high achievement noted was in preparing others to be successful. In general, the results generated within the organization were consistent with the findings derived from the interviews. Most of the participants made improvements in their tactical leadership and project execution skills. A few of them developed a holistic and enabling paradigm of thinking rooted in challenging themselves and supportively questioning others. Furthermore, the participants and their managers acknowledged the environmental constructs of time pressures and client intolerance as limitations to learning and application. Finally, the results of this study were consistent with a pilot study (Butterfield et al, 1998). The participants in both studies generally experienced that:

1. The process of action learning, primarily questioning, is a powerful way to solve problems--accomplish work.
2. Action learners can immediately apply the principles of action learning informally--more one-on-one instead of the formal group process.
3. Focus on immediate results, expertise, and experience inhibits learning and its application.
4. Action learners can internalize questioning as a value--a personal and holistic way of thinking.

Summary of the findings. The predominant learning and use of action learning by the participants in this study was the practice of provocative (thought provoking) questioning. Approximately one-fourth of all participants proceeded to the depth of insightful questioning. Some participants did ask themselves and each other questions designed to clarify, examine, probe, discriminate, interpret and integrate elements of the situation, but others were somewhat less able to do so. It was difficult and mostly uncomfortable for the participants to make and sustain the switch from providing advice and counsel to insightful questioning. Most of the participants continued to rely on experience or expertise (their own or others' expectations) to some extent. Many of them engaged in questioning of a suggestive nature that appeared to be another way of recommending something from the questioner's experience. I especially interpreted such questions such as being of the "leading" kind. These often appeared to be veiled suggestions and cues to the answer that the questioner wanted considered. These types of questions and reliance on others' experience can act as barriers to learning, to generating one's own solutions, and to generating solutions grounded in the context from which the problem arises. By engaging in at least the level of provocative questioning, many of the participants expanded their perspectives, redefined problems, actively experimented, reflected and either resolved or made progress toward resolution of their problems. For some of the participants, the shift to asking insightful questions seemed to be hampered by the use of the familiar problem instead of the unfamiliar problem, unquestioned reliance on experience and expertise, or the expert role mindset. The facilitative-oriented managers (process consultants) may have a built-in advantage. They tended to engage in what seemed to resemble insightful questioning to induce others and themselves to think differently about their situations. It may be that their mindsets and expertise are grounded in consulting process rather than in subject matter. They typically perform their work without having specific expertise in the content of the client's problem.

Conclusions, recommendations, and implications for HRD research and practice

There appears to be two levels of questioning that can help the action learner view a dilemma differently. One level is the provocative question, the most predominant learning and application. The provocative question appears to induce people to adapt something known from their or others' experience to a current problem. The risk is making current decisions and solving current problems with assumptions rooted in a non-relevant context or with obsolete or limited information. Action learners can use provocative questioning to make some progress toward solving work and personal problems. They can also use questioning to coach, enable, and counsel others in their own and client organizations. By doing so, they can discover multiple ways of making progress on their problems. This type of questioning, however, does not induce individuals to identify their assumptions or preexisting personal theories that influence their ability to view their situations in different or new ways. The provocative question appears to limit the response to what is already known--it provides boundaries within which to answer the dilemma at hand.

The second level, the insightful question, allows action learners to experience more qualitative results because they tend to access and explore their own cognitive processes and assumptions and then evaluate the conditions of the relevant context. This type of questioning is more representative of systems thinking than the provocative question because the learner can examine diverse elements (and their interdependence) of the relevant context in more inclusive ways. They can subsequently derive entirely new solutions rooted in the problem's unique context in a real-time manner, considering the people and conditions of the relevant context instead of the people and conditions of a context not associated with the current problem. Insightful questions can result in action learners generating their own solutions instead of transferring cues from others or other experiences. Such action learners can recognize that individuals within the context have diverse ideas or perspectives about the relevant problem that could influence the course of action or provide a starting point from which to engage in further investigation. This leads to more developmental and innovative results than are likely to be derived from the provocative question. From a typical action learning experience, few will learn to engage in insightful questioning (of self and others) to the point that it becomes a natural way of thinking.

After a formal program, action learners tend to informally engage action learning instead of a formal group process with designated airtime. Such engagement can be in one-on-one dialogue, dialogue in meetings, or in very informal spontaneous interactions where they perceive a safe environment. This is very different from the formalized workshop setting where there was a specific process to follow including a finite airtime to discuss the problem, actions taken to date, questions from colearners, and discussion of lessons learned. The change in operationalizing action learning less formally as these participants did should not be construed as relapse or decay. In action learning groups in the United States, colearners typically experience a formal sequential technique that includes questioning. However, Revans, himself, has not prescribed finite and sequential steps for the action learners. He does not espouse learning a sequential technique. He focuses on building capability for the future. Learning and performance (in this case, application) is highly individualized based on the learners' current and future needs, the problem under study, and the relevant contexts. Consequently, the participants learned the technique, but did not apply it. They experienced more meaningful learning that they subsequently applied by translating the results of the technique. This required a longer period of time for cognition and application purposes. Additionally, the program designer (the HR developer) was far removed from the informal learning and application that occurred after the completion of the formal action learning experience.

Finally, learning and application cannot be adequately designed into the experience and appraised by evaluating just one or two of the elements of action learning. The systemic nature of action learning illustrates the intricacy and inter-relatedness of learning, action, accountability, responsibility, and characteristics of the learner, program design, and the context. Evaluating just one or two constructs would not present the full extent of learning or its application.

The conclusions drawn have implications for the theory and practice of action learning. These data add longitudinal insight to the existing research base. These data also highlight that building the capacity for learning needs time to develop; therefore, it is typically not measurable in the short term such as a three-month program. The participants needed more than the three learning group workshops; further support from their managers: and relief from work pressures to focus on, reinforce, and extend their learning. Continued management and HRD involvement need to be designed into the formal action learning experience. This is particularly true when action learners will typically use their learning in an informal and spontaneous fashion instead of in a formalized workshop setting--this informal use of action learning is not as visible. The intent of action learning is for the action learner to use an immediate problem as the learning mechanism in the present. However, the long-term focus of action learning is to develop new ways of thinking so that individuals can address future problems in qualitatively different ways. Therefore, time is needed for the HRD practitioner to evaluate the effectiveness of action learning--

effectiveness cannot be validated in the short term. HRD practitioners need to provide safe haven for communities of learning. The safe haven provides opportunities to experiment with and extend new learning, new techniques, new performance strategies, and thought processes without fear of career limitation from executive management, clients, peers, or the self. These communities can focus on learning that is both immediately applicable and strategic.

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Mapping Group Dynamics in an Action Learning Experience: The Global Team Process Questionnaire (GTPQ)

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Action learning is increasingly used for developing teams, "jump starting" organizational learning, promoting leadership development and transforming an organization's culture. However, there is little research about how action learning is viewed by learners and how the group dynamics within teams dedicated to action learning unfold. Virginia Commonwealth University has given the evaluative area of action learning concentrated address. VCU used a modified version of the Global Team Process Questionnaire to map group dynamics in action learning sets.

Keywords: Action Learning, Evaluation, Higher Education

For the past five years, the Adult Education and Human Resource Development Master's Degree Program at Virginia Commonwealth University (VCU) has been striving to build evaluation techniques specific to the action learning experience. Action learning has become an important part of curriculum design. Dilworth (2000) reported on action learning programs at six universities, including two outside the United States. At VCU, students in the aforementioned Master's Degree Program are encouraged to think deeply about their experience in dealing with a complex, real-world problem that they are asked to solve as part of the capstone course in the program. The students do this as part of an "action learning set" of four to six members. They are asked to keep "learning journals". At the end of their semester-long experience, "students submit an extensive individual report on the action learning process, group dynamics and personal lessons learned" (p. 529).

Why is action learning different than a usual team related undertaking? VCU uses core principles of action learning in its program that are found in varying degrees in most other action learning programs.

The problem to be addressed by the set (or team) is real and in great need of address. It is not fabricated in any way.

1. While it is expected that a solution to the problem can be developed and acted upon, the larger yield is learning itself. The real problem becomes the fulcrum on which critically reflective learning processes occur. The goal from a human resource development standpoint is to develop people who are capable of leading, problem solving, working effectively in teams, and thinking critically in building the long-term strategic capabilities of the organization.
2. Action learning must lead to action (Marquardt, 1999). "Merely producing reports and recommendations for someone else to implement results in diminished commitment, effectiveness, and learning. . ." (p. 33)
3. Emphasis is on questioning inquiry (the "Q" in the parlance of Reg Revans) as opposed to excessive dependency on "P", standing for programmed instruction (Revans, 1983, p. 11). Revans argues that in a rapidly changing environment we should begin with the "Q" (what is happening, what ought to be happening, and how do you make it happen?).
4. The set has no assigned leader and customarily operates as a self-directed work team with responsibilities shared.
5. Emphasis can be on moving learners away from what they already know, assigning them to work on problems that no one in the set has any great familiarity with. This can lead to fresh questions (the "Q" factor) and a re-examination of basic underlying assumptions. In this format, members of the action learning set are usually assigned a common problem to deal with. In other approaches, the individual set members may have individual problems they work on that are taken from their respective workplaces. In the latter case, the problem will probably only be familiar to the set member studying that issue (unless an entire natural team is committed to problem solution), thus creating an environment conducive to questioning inquiry.

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Problem Statement

There needs to be greater attention given to the evaluation of learning that is taking place, as well as group dynamics, in an action learning experience. This is not an area that is well covered, in part because the focus can center on task accomplishment versus learning. Action learning also has many variations in application, and determining how best to evaluate group dynamics and learning across action learning experiences can be problematic.

Theoretical Construct

Action learning traces its origins to action research and Kurt Lewin (Weisbord, 1987).

Lewin intended his enhanced problem solving model to preserve democratic values, build commitment to act, and motivate learning—all at once. Indeed some people have renamed the process action learning to more accurately indicate its nature (p. 87).

The work of Reg Revans over the years has given primary shape to action learning, including refinement of the dimensions inherent in the process (Revans, 1983, 1982, 1980). Those dimensions are highlighted in the introduction to this paper.

Action learning is increasingly finding its way into corporations, often as part of their corporate university. Rather than simply send high potential managers to external executive education programs, these organizations are developing focused large-scale customized action learning programs with measurable results. (Meister, 1998, p. 15)
The Global Team Process Questionnaire (GTPQ) was created by ITAP International of Princeton, New Jersey, an organization doing wide-ranging consultancy with corporations world-wide. The fact that the GTPQ is indexed to the global arena makes it doubly attractive as a vehicle for evaluating group dynamics in an action learning set, since sets can often have multi-cultural content. This is certainly true of corporations today, and it can also be true of the university setting. For example, the Adult Education and Human Resource Development Master's Degree Program of VCU partnered with the University of Salford in England in 1996 in organizing an action learning program for US, Canadian and Australian students. (Dilworth, 1996, 1997, 1998, 2000). Further, students in the VCU program in recent years have come from 17 nations.

The GTPQ is a well-established instrument in terms of wide application since its inception in 1993. It has been used extensively (over 30 administrations with global teams), with pharmaceutical companies as well as in the chemical, consumer products and information technology industries (Bing, 2000). Thoroughly tested in a variety of environments, specifically by peer reviews at the end of the process, results have shown that the team with the best level of process (as indicated by the GTPQ) was also rated as producing the highest quality results. The GTPQ is a diagnostic tool which measures process changes over time on global and distance teams. It has also been used for intact, local teams.

Research Questions

The research questions all stem from one overriding proposition, namely that you can evaluate group dynamics and learning processes in action learning sets. Evaluation of group dynamics in teams is not new. What is new is an attempt to map group dynamics and effectiveness of the learning process within an action learning experience in juxtaposition. The specific research questions are:

1. Can a modified version of the GTPQ be used in an academic setting to map group dynamics and effectiveness of learning in an action learning experience?
2. What can administration of the GTPQ tell us about the internal dynamics of an action learning set?
3. What barriers occur in an action learning experience that can stand in the way of the learning process?
4. What positives and negatives do the participants in the action learning experience ascribe to action learning?

Methodology and Research Design

In partnership with ITAP International, the GTPQ was modified to fit the academic setting and obtain information specific to the action learning experience. Most changes to baseline questions were minor (e.g., reference to class versus corporate setting).

The following specific questions were asked in the modified questionnaire. Where a slight adjustment has been made to fit the classroom setting, one asterisk appears. When the question is unique to the particular experiment in evaluating action learning, a pound sign appears. All other questions listed are baseline questions used without modification. Respondents use a six level Likert Scale in assigning a value (favorable to unfavorable). In some questions, "6" is high and in other cases, "1" is high.

1. Within your team, please characterize the distribution of work among team members over the recent past (equal to unequal).
2. Have your skills and capabilities increased through participation in your team?
3. Do you have time for work on your team's activities?
4. Is the agenda of your team clear? (Clear vs. unclear)
5. Are the roles of the team members clear? (Clear vs. unclear)
6. How effective is the work of your team? (Effective vs. ineffective)
7. (*) Have you had the opportunity to inform others in the class of the work of your team? (No opportunity or need vs. provided a presentation to another group)
8. (*) Have you had the opportunity to learn of comments on your work team from others in the class (No vs. quite a bit)
9. (*) How do you rank the importance of your team to your own future career success? (Of central importance vs. of little or no importance)
10. (*) Is your future career success likely to be positively affected by the team's work? (My future career success will remain unchanged or degraded, to there is likely to be a positive benefit to my future career success)
11. Group communications (Excellent to poor)
12. Describe the level of trust on this team. (Strong to weak)
13. (#) Describe the level of support provided by client(s). (Highly supportive to not supportive)
14. (#) The degree of learning occurring in this course experience vs. other courses you have taken. (Much higher to much less)
15. (#) The extent to which you find this experience challenging vs. other learning experiences in an academic setting. (Much less challenging to much more challenging)
16. (#) How did you find operating in a virtual team environment (i.e., much of the interaction by Internet and telephone vs. a collocated team at a single site? [One action learning set dealt with a client team over 1,000 miles away]
17. Identify a barrier that stands in the way of your team's work.
    a) With respect to your contributions.
    b) With respect to internal team productivity.
    c) With respect to factors, outside the team's control. [These required open-ended response vs. Likert Scaling]
18. (#) List four positives and four negatives in priority order of your experience with action learning thus far. [Students provided open-ended entries]

Two action learning sets were involved in this experiment. One set of five consisted of four females and one male. The other set had three female members and one male member. Administration of the Honey-Mumford Learning Style Questionnaire (LSQ) helped determine the set to which a given student would be assigned. An effort was made to mix learning styles and backgrounds in arriving at action learning set composition.

The larger team was involved with a major examination of how professional development programs needed to be designed and promoted for 500 faculty and staff at a large local community college. The other team dealt with a major project for the corporate university of a major company based in the Mid-West. Their study centered on evaluating how to measure delivery of learning programs. They had on-site visits at the beginning and end of the project (February and April 2000), handling research and interaction with the client team via virtual means in the interval between visits.

Adding to the value of this experiment was the fact that earlier evaluation processes were left in place as the GTPQ was administered. Students kept their learning journals, served as a focus group in discussing their experience as it developed during the semester, submitted a 15 to 20 page end-of-semester essay providing an assessment of the action learning process and group dynamics, and submitted a five to seven page end-of-semester essay on their personal learning. Their personal learning was pegged to critical incidents criteria. (Dilworth, 1998)

The GTPQ was administered twice during the semester. The first administration was done after the team had been through a month of intensive effort and had a chance to develop some group cohesion. That became the baseline index. Three months later, the second administration occurred as the projects drew to a close. It was therefore possible to compare baseline results with the second administration of the GTPQ, do a gap analysis and map trends. This could in-turn be compared with the other evaluative processes used. Following each administration, ITAP International determined qualitative results via computer analysis and recorded qualitative results.

The action learning sets were given a composite/matrix profile of the overall team averages and range for each question asked, together with individual team member scores for each question. Since all completed their questionnaires independently, there was no way of identifying who was responsible for a given score. The results showed relative alignment in some cases (all scores close to the same) and areas where there were significant perceptual disagreements within the set. This created a basis for meaningful discussions within the set in reviewing and "fine tuning" the group dynamics. It served to open up discussion in areas that might otherwise have been undiscussable.

Each action learning set saw the complete results of the other team as well as their own. Each set then served as a set of "consultants" to the other team in helping them sort through the findings, in determining what they meant and how the team needed to address the findings.

What limitations were there to the research? As with any such investigation, the mix of participants can heavily influence results, no matter how good the methodology or basic learning design (in this case action learning). However, the care in administration of the GTPQ and the forms of triangulation present (e.g., comparing narrative student comments in their essays to GTPQ results) did serve to create a means of interpreting the significance of the results.

Results and Findings

1. Qualitative comparison of GTPQ results with other evaluative reference points (essays) suggest strong congruence, and that is reasonably to be expected. Both record the same experience.
2. Team 2 started with a relatively low profile in terms of performance based on the GTPQ. It then surged based on results of the second GTPQ. Team 1 had a much stronger initial profile. It then slipped back somewhat based on the second administration of the GTPQ, but retained rather high marks across the board. When the second administration of the GTPQ is compared with the first for each team, it reveals the following trends across the question categories (Likert-based items).

Improved		Diminished	Unchanged	
	Team 1	04	11	01
	Team 2	14	01	01

1. GTPQ results for both administrations reveal very strong positive ratings for both teams in the following categories:

a. Work distribution.
b. Use of time.
c. Team agenda clear.
d. Team member roles clear.
e. Team effectiveness.
f. Opportunity to inform others.
g. Opportunity to learn from others.
h. Future career success positively affected.
i. Trust.
j. Learning in the academic course vs. others.
k. Experience challenging vs. other classroom experiences.

2. The high quantitative results on the GTPQ are mirrored in the quantitative results generated by the usual faculty evaluation form used at the university to assess quality of instruction and the learning experience. Results were uniformly at a median level of 5 (on a Likert Scale, with 5 as the maximum rating). Student essays also reflect the very positive student evaluation of the experience.

3. When set profiles were examined they identified some disparities of view within a set/team. Deviations of two or more Likert ratings between set members in a given area demonstrated to the set that there were some potential problem points in group process. One example of this was when four of five members of a set rated quality of communications to be excellent, while one member rated this area low. Another area of divergence noted was related to time. Four found adequate time to work on the project and one did not. Such differences are important to know. They provide a basis for intervention strategies within the set itself to alleviate concerns and improve group process.

4. While students placed high value on the learning, they also cited barriers to the team's work. They were invariably time related. Some verbatim student comments were:

a. Family time is reduced.

b. Time: Balancing work and this project because of the time spent on the project. I feel as though I almost need to be "on leave" from work in order to do extensive research, meet with the client, prepare presentations, etc.

c. Trying to meet at a convenient place and time for all members (not a very big barrier though!)

d. Attendance and punctuality has marginally interfered with productivity, but may have undermined group process (e.g., communication and cohensiveness. . .).

5. What is shown below is a representative sampling of student comments re: the most positive and negative aspects of the action learning experience (Number 1 in the priority order, of four asked for)

Positives

- Good team cohesiveness
- People from different areas and backgrounds working together
- More camaraderie than traditional courses
- Group interaction
- Working with the team and coming from a variety of experience
- Communicating within loop—sharing concepts with all for new ideas
- It's good (to a degree) that we are unfamiliar with the client organization—fresh perspective
- Developing friendships with team members

Negatives

- Confusion as to which group member should answer questions when asked by the client
- Decision making can be a long process
- Difficult to coordinate logistics
- Stress
- Must rely on all members, i.e., have to wait when one or more are late
- Overwhelming, easy to lose confidence in project
- Having to coordinate with all even with minor issues
- The client didn't seem to embrace, by way of deep introspection, action learning
- Difficulty getting a real grasp on what is expected of our team (deliverables)

Conclusions and Recommendations

1. To use the GTPQ effectively requires that the team have time to form and coalesce before administration of the instrument. In an earlier pilot test by the researcher, the teams involved did not spend extended time together. Therefore, team members did not feel any real vesting in team performance. Further, there was no single project focus as was true in this action learning experience. In the action learning experience, the project work was tightly bounded by time. How well the group did played an important part in determining the individual student grades.

2. When used in situations such as the action learning experience, where the work tempo is intensive and success of the team depends on good group dynamics, the GTPQ seems a very powerful tool. It also provides a basis for the team to target on specific areas that can interrupt or impede team effectiveness. That allows the team itself to deal with such problems. Since problems have been made evident by the team members, themselves, through anonymous completion of the GTPQ, the issues are made authentic and legitimate. It is worth noting that when results are excellent, good performance can end up being further bolstered (reciprocal causation). If an external facilitator, on the other hand, were to identify problems to the group based on observations of group activity, that would not tend to carry as much weight. It would be group process as seen through the eyes of someone not a continuous part of that process, rather than the inner conscience of the group.

3. When the GTPQ is slightly modified and wedded to the action learning experience through use of some open-ended questions, it can be doubly useful in an action learning context. The members of the action learning set receive not only quantitative feedback in this case, but qualitative as well. What this suggests is that the GTPQ can be made even more effective and useful by including questions customized to the context involved. This can be especially useful in dealing with cross-cultural situations where an understanding of cultural nuance can be important.

4. To an indeterminate extent, the GTPQ itself served as an effective intervention, in that its administration caused members of the action learning sets to consider a number of areas that are critical to the effectiveness of any group/team (e.g., clarity of team member roles and the level of trust within the team).

5. Use of the GTPQ in this instance, since it was used in tandem with several other evaluative sources (i.e., two essays, professor observation, class as focus group and the usual faculty/course evaluation at the university), provided a means of triangulating the results.

6. In responding to those question areas unique to the classroom version of the GTPQ, students rated the action learning experience more challenging and of higher learning value than other university courses they had taken. In terms of challenge, one set assigned an average value of 5.4. The other set averaged 4.5 (with a Likert Scale rating of six being the maximum in this instance). In terms of learning compared with other courses, one set assigned an average value of 2 and the other 1.75 (the best Likert Scale rating being 1 in this case).

How this Research Contributes New Knowledge in HRD

1. It shows how a proven survey instrument can be further strengthened through customization and the addition of a qualitative component to go with the quantitative one.
2. The GTPQ seems to have particular utility in an action learning experience because it promotes critical reflection at both individual and group levels, allowing the group itself to determine how best to self-facilitate progress. It can also give an external facilitator a legitimate basis for helping a group work through its self-determined problem areas.
3. As the use of self-directed work teams broadens, with the need to have them truly self-direct their activities, an instrument like the GTPQ can be of great value. As indicated earlier, it can be of particular benefit in identifying areas of possible culture clash when cross-cultural teams are being used. Since some cultures are reluctant to discuss problems openly, this can be a means of getting areas of concern into the open for discussion.

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Comparing the Learner's and Educator's Perspective on Conditions that Foster Transformative Learning in Action Learning Programs

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This paper looks at the results of two action learning studies to compare the learner/participant perspective with the educator/learning coach perspective on what individual, program and organizational conditions foster transformative learning. The results show some agreement in the individual context; significant agreement in the program context; and little agreement in the organizational context, along with two areas of interest for Mezirow's work on transformative learning.

Keywords: Action Learning, Transformative Learning, Rational Discourse

Problem Statement

Action learning is said to help bring about transformative learning (Dilworth, 1996; O'Neil & Marsick, 1994; Pedler, 1996). Research has been done from the learner/participant perspective that describes what they experienced that brought about transformative learning (Lamm, 2000; Weinstein, 1995). Research has also been done that tells us what educators/learning coaches do to try to help bring about transformative learning (O'Neil, 1999). What we don't know is how the learning conditions that learners describe as fostering transformative learning compare with those conditions that learning coaches said they created to foster such learning. In other words, do learning coaches who espouse helping learners engage in critical reflection to lead towards transformative learning actually create situations that, from a learner's viewpoint, foster transformative learning? By having a better understanding of this phenomenon, human resource managers can improve the design of action learning programs and learning coaches can improve their practice.

Theoretical Framework

The concept of action learning originated with the work of Reg Revans in England in the 1940s (1989). We generally defined action learning as follows:

> "An approach to working with and developing people that uses work on an actual project or problem as the way to learn. Participants work in small groups to take action to solve their problem and learn how to learn from that action. Often a learning coach works with the group in order to help the members learn how to balance their work with the learning from that work" (Yorks, O'Neil & Marsick, 1999, p. 3).

Through an analysis of the different ways in which action learning is being practiced, O'Neil (1999) identified four 'schools' of action learning practice: the scientific school, the tacit school, the experiential school, and the critical reflection school. These 'schools' are based on the way in which practitioners view learning takes place in action learning. The school that is most pertinent to this paper is the critical reflection school. In the critical reflection school, practitioners believe participants need to go beyond problem solving to problem posing, and reflection on the basic premises that underlie their thinking. Mezirow (1991) refers to this kind of reflection as critical reflection. The explicit intention of fostering critical reflection is the primary differentiator of this school from the other schools.

Learning coaches who advocate the critical reflection school believe learning takes place through critical reflection and in their practice try to create situations in which this type of reflection would take place. The goals of this school are personal and organizational transformation (Yorks, O'Neil & Marsick, 1999).

For the purpose of this paper, we use an adapted version of Mezirow's (1995) definition:

> Learning becomes transformative when a distorted, inauthentic, or otherwise unjustified
> assumption is replaced by a new or transformative point of view (meaning scheme)
> or habit of mind (meaning perspective) resulting in a more differentiated, complex,
> inclusive, reflective meaning structure as a guide to action (Lamm, 2000, pp. 222-223).

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Research Questions

1. Do the situations/conditions that learning coaches create with the intention of leading to transformative learning actually enable transformative learning from the perspective of participants?
2. Are there situations/conditions that learning coaches create with the intention of leading to transformative learning that participants don't identify?
3. Are there situations/conditions participants say bring about transformative learning that learning coaches don't explicitly identify?

Methodology

This study compares the results of two dissertation research studies—one that looked at transformative learning in action learning through the eyes of learners/participants and one that looked at action learning through the eyes of learning coaches (Lamm, 2000; O'Neil, 1999). The comparison was done via a content analysis (Weber, 1990) of the findings from both dissertations. The two researchers did the content analysis of the findings independently and the results were compared to help promote inter-rater reliability (Miles & Huberman, 1994).

The dissertation that looked at transformative learning (Lamm, 2000) from the learners' eyes addressed whether and how leaders who participated in an action learning program experienced transformative learning, and which if any leadership behaviors were most likely influenced through participation in the program. This dissertation was a qualitative case study in one global corporate organization. The research sample included 24 learners, 24 co-workers who work with them, one key executive, and three action learning coaches. A number of data collection methods were used including: document analysis, pre-interview forms, learner, executive and learning coach interviews, learner leadership reflection forms, co-worker critical incident questionnaires, and Burke's (1992) self and co-worker leadership assessment inventory (LAI).

Transformative learning occurred in the areas of self-understanding, inclusiveness and reflective action. Also human qualities in leadership were enhanced, namely, empathy, humility, tolerance and patience. A model for cumulative transformations was developed. A complex interaction of individual, program and organizational conditions fostered a cumulative transformation process of multiple new awarenesses, verification/support, and practice. The after-program conditions were as important as stimuli that triggered transformative learning.

The dissertation that looked at transformative learning through the learning coaches' eyes (O'Neil, 1999) addressed what action learning coaches do and why they do it, and what they think is distinctive about their role in helping individuals learn from their experience. This dissertation was a modified phenomenological study of 23 learning coaches in the US, UK and Sweden. It used a variety of qualitative research techniques including "Self Q" interviews (Bougan, 1983), semi-structured interviews, and observations. The focus from the dissertation for this paper is on the view of those learning coaches who espoused helping learners engage in critical reflection towards transformative learning.

Key findings pertinent to this paper are that learning coaches who have a theoretical underpinning of how learning takes place in action learning and an internal, metaphorical view of their practice are more likely to have their espoused theory of practice match their theory-in-use. Second, learning coach interventions that are unique to action learning focus on creating situations which would promote and support learning, particularly learning that leads to critical reflection and possibly transformative learning.

The limitations that need to be acknowledged in looking at the findings from this study include the following:

- only the findings of those learning coaches who espoused using critical reflection to create transformative learning—a total of 8 out of 23—were used for the content analysis
- the study of learners was confined to one organization within one action learning program, while the learning coaches worked across a wide spectrum of academic and corporate organizations and action learning programs.
- learning coaches who did not work in the program studied by Lamm were included in O'Neil's learning coach sample.
- the original purpose of Lamm and O'Neil's study was not to compare learner and learning coach perspectives.

Results and Interpretations

There are a number of similarities in what the learners think are conditions that support their transformative learning and what situations learning coaches create to enable transformative learning. There are also some situations emphasized by the learning coaches that are not explicitly discussed by the learners and some important to the learners not addressed by learning coaches. The results are presented from the learner perspective and use the terminology from each separate study in describing the situations and conditions discussed. Results are discussed for each of the research questions and are followed by interpretation of these results.

Table 1. Research Question 1: Do the situations/conditions that learning coaches create with the intention of leading to transformative learning actually enable transformative learning from the perspective of participants?

Learner Perspective	Learning Coach Perspective
Individual Contextual Conditions	
Little or no experience in a learning area	Use of unfamiliar problems in unfamiliar contexts with non-expert participants
New awareness	Enables participant to critically reflect on self
Program Contextual Conditions	
Project teamwork including:	
• Continual action and reflection	Focus on cycle of reflection; action; reflection on action Enables participant to critically reflect on self Challenges the group
• Importance of project work	Program design emphasizes work on participant's or organization's real work
• Dialogue	Use of dialogue as one of the models when working with team
• Feedback	Provides feedback and enable participants to give and receive feedback from one another
Diversity	Program design emphasizes diversity of participants on team
Importance of practicing new behaviors	Transfer of learning
Feeling empathy when experiencing or seeing someone else experience emotions or feeling of exclusion/less than	Help participants to give and receive feedback to each other Help group to deal with emotions
Intensity, duration and frequency	Influence of time on work of learning coach
Open and trusting environment	Emphasis on confidentiality Work with an individual, but only within the team setting Create a supportive environment
Organizational Contextual Conditions	
Top management support	Influence of sponsors on work of learning coach

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Although there is agreement in several areas, some agreement is stronger based on the number of learners and learning coaches who agreed. These stronger agreements are discussed below.

Individual Contextual Conditions

The key match in learner and learning coach perspectives within the individual context category is the importance of the learner having little to no experience in a learning area. All 22 of Lamm's learners discussed this condition. This condition was supported by the program design of having unfamiliar problems in unfamiliar contexts with non-expert participants on project teams. These design criteria were expressed as a basic part of action learning by almost all coaches in O'Neil's study including those not in the critical reflection school. This feeling of "not knowing" often fostered learners in trying on new points of view which Lamm (2000) defined as a new awareness. Prior to trying on this new point of view was what appeared to be a disorienting dilemma where learners realized that the way they originally viewed a situation/perspective might not be accurate or the best interpretation. Table 1a displays an example of this match:

Table 1a. Little or No Experience in a Learning Area

Learner Perspective	Learning Coach Perspective
(Before the program) I had a limited cross-function view…I was not aware how people working in other parts of the world looked upon us as a company...during the program, I realized other people looked upon things differently. (Back)	You might have in-company programmes where projects are undertaken in unfamiliar departments. … I'm in with the Reg (Revans) system here you know—beware of the experts. Beware of those who know, who've always got an answer. (Wendy)

Program Contextual Conditions

The first agreement in this area is continual action and reflection. All 22 of Lamm's learners and the 8 learning coaches in the critical reflection school in O'Neil's study described action and reflection as fostering transformative learning. The learners said that their learning coaches played a key role in this balance and the balance is considered an integral part of the ARL™ process. The coaches discussed using reflection—in Mezirow's language (1991) some described process reflection or content reflection—but always oriented towards creating situations for learning. These learning coaches also stressed the use of critical reflection to which the learners did not explicitly refer. This lack of reference to critical reflection may have been because the learners lacked the appropriate terminology; there was a lack of probing for critical reflection; or an issue involving adult development levels that will be discussed more in the conclusions section of the paper.

Table 1b. Continual Action and Reflection

Learner Perspective	Learning Coach Perspective
Because a lot of courses…they pass by, but this I think stuck in our minds…In this case it was repeatedly coming back to the same over emphasizing it…Did we do things right? What shall we do better? Making us almost angry how much...reflection…but if we hadn't done like that, it might have been that I wouldn't have remembered it. (Back)	But I'd certainly stay after and ask questions like questions you might agree to reflect and listen to. … How do you understand that Jean is interpreting our situation? Could you interpret it any differently? Alternative interpretations come to light that would drive people into more deep, you know, thinking about some things. I might do that sort of thing. (Pete)

The continual action and reflection is linked to the program condition of intensity, duration and frequency. As illustrated by Back in Table 1b, all subjects considered for this paper named this as an important condition in fostering transformative learning. Action learning programs have a variety of designs. When program sessions are spread over time, learners can try out new behaviors back in their lives, project work continues between program sessions and learning coaches are better able to create conditions to allow learning to happen. The action and reflection balance is continuous throughout the program, which assists learners in making new behaviors that work a habit.

So the second are of substantial agreement is the intensity, duration and frequency of the program. All 22 of Lamm's learners and the 8 learning coaches in the critical reflection school in O'Neil's study discussed this phenomenon. The learners discussed how they could not escape the intensity of the program, with common mention of long hours and fatigue, but agreement about the value of a program of this duration. The coaches also discussed the issue from the opposite perspective. They expressed concern about the need to have sufficient time to effectively help people to engage in learning that could result in transformative learning. This difference in perspective can be attributed to the fact the coaches were engaged in a variety of program models—not all of which had the amounts of time they felt were sufficient for their work.

Table 1c. Intensity, Duration, and Frequency

Learner Perspective	Learning Coach Perspective
That's one of the good things this program has…It takes almost a year, so I mean, you get reminded. You get a new shot every three months…you get a chance to do something about what you learned, and implement it…One of the things we regret is that it has stopped. (Mike)	There's a mixed dilemma (with short programs) because if you wait until they really need it, it's the end of the program…My sense it it's not ideal in terms of timing. (Hillary)

The final area in Program Contextual Conditions is an open and trusting environment. Again, all subjects being considered for this paper in both studies agreed on this condition. The learners defined it as one where they felt safe to be honest and vulnerable and supported in their learning. Five of the learners specifically linked the learning coaches to creating an open and trusting environment. The coaches discussed norms such as confidentiality and setting boundaries between the action learning group and the organization and used words like collaborative, a 'context of grace', ethics and humane in characterizing the kind of environment they were trying to create. The kind of environment described by both the learners and coaches alike has a lot of resemblance to Mezirow's conditions of rational discourse (1991), which will be discussed more in the conclusions of the paper.

Table 1d. Open and Trusting Environment

Learner Perspective	Learning Coach Perspective
I felt secure also in the program. And if I hadn't…if I felt insecure, I think that would have blocked me from learning experiences. (Mike)	They interrogated him and told him in no uncertain terms that he had to go. … I just sat there rather quietly and said, 'well what are you going to do?'. … And my intervention seemed to create some sort of atmosphere which almost helped heal the thing. … There they were ready to see him off, and all of a sudden seeing this healing. I guess what I found interesting was that people do change if you're able to create the environment. (Ben)

Table 2. Research Question 2: Are there Situations/Conditions that Learning Coaches Create with the Intention of Leading to Transformative Learning that Participants don't Identify?

Learner Perspective	Learning Coach Perspective
Program Contextual Conditions	
No match	Use of questions
No match	Learning coach 'role metaphor' to say nothing and be invisible

Of the two Program Contextual Conditions explicitly identified by coaches and not learners, the most critical is the use of questions. Questions, or 'questioning insight', have always been considered a fundamental part of action learning (Revans, 1989; Weinstein, 1995). Learners also did not explicitly identify learning coaches as instrumental in their transformative learning. These non-matches could be attributed to the fact that both questions and coaches are such an integral part of the action learning process they became 'invisible'. The earlier quote by Back alludes to questions being asked repeatedly during the reflection process and in O'Neil's findings many of the learning coaches tried to attain the role of "saying nothing and being invisible".

Table 3. Research Question 3: Are there Situations/Conditions Participants Say Bring About Transformative Learning that Learning Coaches don't Explicitly Identify?

Learner Perspective	Learning Coach Perspective
Program Contextual Conditions	
Informal time	No match
Organizational contextual conditions	
Supportive organizational context	No match
Job change	No match
Supportive boss/co-workers	No match

There was one Program Contextual Condition and three Organizational Contextual Conditions that learners identified as helping to foster transformative learning while learning coaches did not. The program condition mentioned by 11 learners was how Informal time such as drinking at the bar, eating, and traveling together fostered transformative learning. As one learner said, "you would have to be deaf, dumb and blind not to pick up something after spending so much time together – eating and traveling together." This finding confirms literature on the importance of informal learning (Marsick & Watkins, 1992). Learning coaches may not have mentioned informal time as a condition because, while it is part of the program design, it is not an activity that coaches purposefully engage in.

The Organizational Contextual Conditions described by learners as important in fostering transformative learning but not by learning coaches were Supportive organizational context, Job change around the time of the program, and Supportive boss/co-workers. These organizational conditions were often mentioned as important in continuing to apply new behaviors and try on new points of view back in the workplace. There are a few possible explanations for the learner/learning coach discrepancy around Organizational Contextual Conditions. First, as described in the limitation section above, learning coaches were from varied backgrounds and worked across several organizations, while the learners were within one organization. Second, a learning coach's view is often more within the context of the program since their role is within an action learning program.

Conclusions and Recommendations

There is a significant amount of agreement between the two studies on the conditions that can help to enable transformative learning. Both the major areas of agreement in the individual and program context, and the main area of disagreement, the organizational context, can be attributed to a number of reasons as discussed in the preceding section.

There are two areas of results from this study, however, that have a particular relationship to Mezirow's work on transformative learning. The first is in the finding of the agreement of a need for an open and trusting environment and the second is the issue of the coaches advocating the use of critical reflection to enable transformative learning versus the learners not explicitly identifying critical reflection as a part of their transformative process.

The finding of the need for an open and trusting environment would appear to confirm Mezirow's ideal conditions where learners are able to feel safe to share openly (1991).

"Under these optimal conditions, participants will:

- have accurate and complete information
- be free from coercion and distorting self-deception
- be able to weigh evidence and assess arguments objectively
- be open to alternative perspectives
- be able to become critically reflective upon presuppositions and their consequences
- have equal opportunity to participate (including the chance to challenge, question, refute, and reflect and to hear others do the same), and
- be able to accept an informed, objective, and rational consensus a legitimate test of validity" (po. 77-78).

For example, Mezirow talks about an environment in which learners are free from coercion and open to alternative perspectives. One learner said, "I felt secure in the program. ... if I felt insecure, I think that would have blocked me from learning experiences". A learning coach described an intervention, "And my intervention seemed to create some sort of atmosphere which almost helped heal the thing". Both described action learning programs that seemed to create these ideal conditions.

Addressing the second issue, Mezirow theorizes that critical reflection is needed for transformative learning (1991). The learning coaches from the critical reflection school would agree with him. Why then didn't the learners, who experienced transformative learning, identify critical reflection as one of the conditions? Two reasons were discussed earlier—the learners did not have the language to describe what could be interpreted as critical reflection or the research didn't probe for critical reflection. Another view might be that these learners didn't experience critical reflection. Fisher and Torbert (1995) theorize that critical reflection and transformative learning can only take place with people who are at a high developmental level. Perhaps people who are at different developmental levels experience transformative learning differently. Mezirow and Lamm (1997) agreed that absent chance occurrence of a traumatic event, cumulative transformations seem most likely fostered in an action learning program. In this case the learners might have experienced a series of single loop learning cycles that resulted in a cumulative transformative learning experience (Lamm, 2000). So while learning coaches may be trying to create situations for critical reflection, many learners may be in "over their heads" (Kegan, 1994) from a developmental perspective.

More research is necessary to examine the issue of how the developmental level of learners may impact their transformative learning experience. A study could be set up with the specific objective of comparing learning coach and learner perspectives. The conditions suggested in this paper could be used to test whether similar conditions are found in other contexts while at the same time allowing for new emerging conditions. Perhaps using a methodology like mixed focus groups of learning coaches and learners could foster a live dialog around such condition comparisons. Such research could also identify possible explanations for discrepancies in learning coach and learner viewpoints.

How this Research Contributes to New Knowledge in HRD

This paper presents a unique look at research that combines findings from two exiting studies to produce a new set of findings. These findings add to the theory base of both action learning and transformative learning, as well as provide knowledge useful to learning coach practitioners. Finally, the paper opens new avenues for research, particularly in the area of transformative learning.

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Workplace Application of HRD Concepts as Perceived by Non-Traditional Adult Students and their Workplace Supervisors

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This study examines non-traditional students' transfer concepts taught in an accelerated undergraduate HRD degree program. It focused on students' application of learned skills and concepts. Students and their workplace supervisors were interviewed over the telephone regarding the evidence of application of learning within the workplace. Results seemed to substantiate the application of skills and concepts learned in the HRD program was transferred to the workplace, and the organization and the individual benefited by the skills and concepts learned.

Keywords: Transfer, Evaluation, Qualitative

This study explores student and supervisor perceptions of application within the workplace of skills and concepts learned in an accelerated undergraduate Human Resource Development (HRD) degree program. In 1999, a total of 62.5 billion dollars was spent on training in the U.S. (Training, 1999). Recent studies suggest that actual transfer of new skills and knowledge back to the job as a result of training ranges from10 to 30% (Brinkerhoff & Gill, 1994; Brinkerhoff & Montesino, 1995; Tannenbaum & Yulk, 1992; Baldwin & Ford, 1988; Broad & Newstrom, 1992). "The focus on performance and its requirement for transfer of learning, means that a shift in perspective is necessary..." (Phillips & Broad, 1997, p.3). This shift in perspective has resulted in top managers demanding evidence that their training investment has paid off or contributed to increased performance outcomes.

Transfer of Learning

"Transfer of learning is the effective and continuing application by learners – to their performance of jobs or other individual, organizational, or community responsibilities-of knowledge and skills gained in learning activities " (Phillips & Broad, 1997, p.2). Baldwin & Ford (1988) suggest that transfer requires learned behavior to be generalized to the job context and maintained over a period of time. Factors that affect the learning outcomes include design of learning program, characteristics of the learner, and work- environment characteristics. Figure 1 illustrates Baldwin and Fords model of the transfer process (1988).

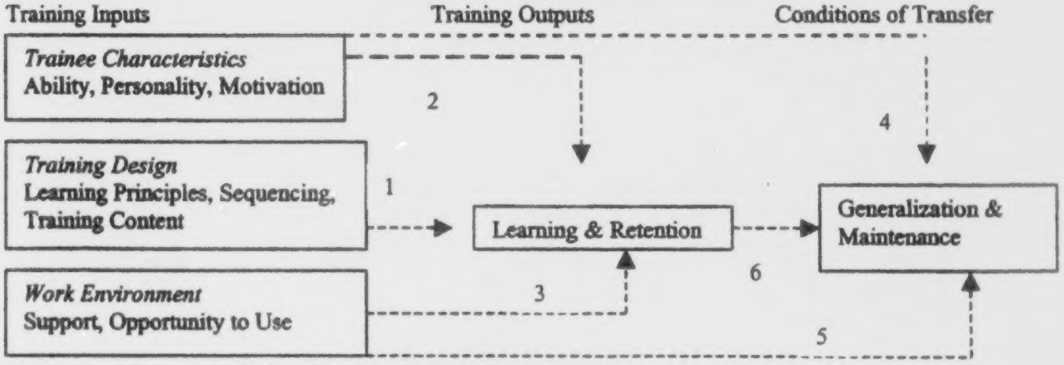
Training Inputs
Training Outputs
Conditions of Transfer
Trainee Characteristics
Ability, Personality, Motivation
Training Design
Learning Principles, Sequencing, Training Content
Work Environment
Support, Opportunity to Use
Learning & Retention
Generalization & Maintenance
1
2
3
4
5
6

Figure 1: Baldwin & Ford's Model of the Transfer Process

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The *application* of skills learned through training and education and its impact on workplace performance is important to consider given the vast amount of dollars invested in these interventions and the performance expectations associated with training and education. The incorporation of learning principles, the sequencing of learning material, and job relevance of learning content are the learning input factors that affect the learning outcomes. Work-environment characteristics that affect learning outcomes include supervisory or peer support as well as constraints and opportunities to perform learned behaviors on the job. Learner characteristics that influence learning outcomes include ability, personality, and motivation.

Evaluation of Learning

Evaluation is a method of gathering data to determine if learning activities have value (Broad, 1997). Kirkpatrick's (1994) model measures the value of four separate learning domains. The four levels or domains include: (a) Level I – Reaction: measures how learners feel about learning/training, (b) Level II – Learning: evaluates what was learned and retained from the learning experience, (c) Level III – Behavior /Application: evaluates the degree to which learners apply what was learned on the job, and (d) Level IV – Results: evaluates the impact that transfer of learning has on the business.

Phillips and Broad (1997) suggest that while providers of learning have typically evaluated participants' reaction to learning, fewer have measured the knowledge and skill gains at the end of the learning event. This practice of low-level evaluation has contributed to the scramble for these providers to find evidence of transfer of learning and improved performance in the current management climate of improving performance while cutting costs and demonstrating return-on-investment (Phillips & Board, 1997).

This focus on performance improvement can be traced in part to the dismal results that business and industry have garnered from the exorbitant amount of money that was allocated in training over the past decade. According to Dixon (1992), three factors are driving organizations to become more productive and intensify the organizational emphasis on learning. These forces include the changing nature of work, the competitive challenges associated with the global economy, and the increasing pace and unpredictable nature of change. Zuboff (1988) posits that information technology has altered the basic assumptions regarding work and learning.

> The informed organization is a learning institution, and one of its principal purposes is the expansion of knowledge-not knowledge for its own sake (as in academic pursuit), but knowledge that comes to reside at the core of what it means to be productive. Learning is no longer a separate activity that occurs either before one enters the workplace or in remote classroom settings. Nor is it an activity preserved for managerial groups. The behaviors that define learning and the behaviors that define being productive are one and the same. Learning is not something that requires time out from being engaged in productive activity; learning is the heart of productivity. To put it simply, learning is the new form of labor (p. 395).

The emphasis on evaluating results of learning has strong implications for HRD professionals who by the nature of their positions are typically charged with managing learning within organizations.

Background

A baccalaureate degree in vocational education with a major in Human Resource Development for adults in the workforce was developed at the College of Education, University of Arkansas, in the Department of Vocational and Adult Education. Requiring 125 credit hours, the program allows students with significant workplace experience to receive up to 33 credit hours for experiential learning. HRD courses and internships provide the upper division courses required for degree completion. Students must meet the 56-hour general studies requirements of the University, courses that can be taken in a two-year postsecondary setting. Credit granted through documented prior work is accomplished through composite-portfolio documentation following a standardized format and Academic Standards as suggested by the Council for Adult and Experiential Learning (CAEL). Applicants will be required to develop a composite-portfolio through which they petition for and are awarded academic credit toward an undergraduate degree in Vocational Education.

Courses include (a) skills and strategies in professional development, (b) strategic planning and development, (c) leadership, (d) team building, (e) research and evaluation, (f) communication, (g) adult learning, and (h) skills in instruction and facilitation.

The HRD program component was introduced in Fall 1996 and was offered to a group of approximately 40 students via compressed video distance education at four sites on Friday evenings and Saturdays. The courses were offered in an accelerated format, meeting 9 weeks instead of the standard 15 weeks. Currently, there are five different groups of students involved in the program at nine different sites throughout the state.

Purpose of the Study

Spender (1992) posits that firms are engaged in two processes: knowledge creation and knowledge application. Demsetz's (1991) suggests that the efficiency in the acquisition of knowledge requires that individuals specialize in specific areas of knowledge, while application of knowledge to produce good and services requires the bringing together of many areas of specialized knowledge. Reich (1987) posits that the learning process is central to continuous organizational improvement and enhanced performance and that all learning in an organization must necessarily occur though individuals. This study proposes to move beyond the traditional Level III evaluation of student application of learned HRD concepts. The purpose of this study is to explore student and supervisor perceptions regarding application within the workplace of skills and concepts learned in the HRD program. The research design is focused on identifying the Level IV impact upon their organizations.

Methods

This study used qualitative methods as the primary research design. A fundamental characteristic of qualitative research is its in-depth exploration of a phenomenon and its context (Densin & Lincoln, 1994; Fryer, 1991; Patton, 1990). Telephone interviews were conducted with each student and their workplace supervisor from the sample. A structured, open-ended interview guide was used for each telephone interview. The interview guide consisted of questions that explored student and supervisor perceptions regarding application of concepts and skills learned in the HRD program. Interview questions included:

Student Interview Guide

1. The concepts / skills that were taught in the HRD program included: communication, leadership, principles of adult learning, instruction and facilitation, needs assessment / research, team building, and professional development. Describe how have you applied the concepts that were presented in the HRD program.
2. How has your organization benefited by your participation in the HRD program?
3. How has the HRD program benefited you personally?
4. How has the HRD program benefited you professionally?

Supervisor Interview Guide

1. The concepts / skills that were taught in the HRD program included: communication, leadership, principles of adult learning, instruction and facilitation, needs assessment / research, team building, and professional development. Describe how [name of student] has applied these concepts on the job.
2. How has your organization benefited by [name of student] participation in the HRD program?
3. How has the HRD program benefited [name of student] personally?
4. How has the HRD program benefited [name of student] professionally?

Both student and supervisor interviews were tape recorded with participant consent. Numerical codes were assigned to each interview to protect anonymity of the participants during data analysis. All interviews were subsequently transcribed and analyzed using a computer-based qualitative data analysis program. Because this was a descriptive and exploratory study, the data were analyzed for patterns.

In accordance with qualitative methods, research participants were selected using purposeful sampling. Patton (1990) suggested that the power of purposeful sampling methodology is selecting information-rich cases for the purpose of learning a great deal about issues of central importance to the research. Criterion-based purposeful sampling was used to select individual participants. To be included in the study, the participants had to meet the following requirements: (a) student participants were from the first and second program cohort, (b) student participants had completed all the HRD courses, (c) student participants had the same workplace supervisor throughout the program, (d) student participants consented to be interviewed, and (e) students consented to having their supervisor interviewed. Workplace supervisors were selected if (a) they consented to participate in the interview, and (b) if they had supervised a student throughout the program. Eighteen students and their supervisors met all of the criteria. Participants represented the following fields: banking, health care, manufacturing, public utilities, and post-secondary education. Participants represented both supervisory and non-supervisory positions.

Data Analysis

Because the primary focus of this study is the application of concepts and skills that were transferred from classroom to workplace, participants' responses were analyzed and subsequently coded to identify patterns in the data that described evidence of knowledge transfer. HRD course concepts and skills focused on communication, needs assessment, leadership, professional development, adult learning principles, instruction and facilitation. Data from each interview were coded to identify evidence of application in the workplace of these skills and concepts. Each student and supervisor response has been coded to provide an audit trail that describes the context of the comments. Miles and Huberman (1994) describe an audit trail as a method of logging and describing our procedures and data clearly enough so that others can understand them, reconstruct them, and scrutinize them. The trustworthiness of the study is contingent upon the audit trail being (a) complete, (b) comprehensible, and (c) systematically related to methodological approaches (Lincoln & Guba, 1985).

Results

In this study students and their supervisors were asked to indicate how skills learned in the HRD program were applied within their workplace. This section summarizes the participants' descriptions and examples of the transfer of skills and concepts from the classroom to the workplace. The skills and concepts described by participants include communication, leadership, adult learning principles, instruction and facilitation, evaluation/research, teambuilding, and professional development

Application of Communication Skills

Students reported that their improved speaking skills had significant impact within their workplace. They reported being more comfortable speaking in front of groups. Due to their improved listening skills, they indicated an increased ability to understand co-workers and their problems. This enabled them to respond more appropriately to what was communicated by others. The students also reported that their non-verbal skills had been developed during the program. This has also improved their ability to better "read" people and respond appropriately. Generally, students reported that being more focused on the communication process and using the skills and strategies presented in the HRD program has increased their effectiveness at work.

The supervisors indicated that the students that had completed that HRD program exhibited increased confidence when communicating to co-workers and clients, and a better understanding of communication methods, and increased ease and ability to disseminate information throughout the organization.

Application of Leadership and Teambuilding Skills

Students perceived that they were better managers because their "people skills" had improved. This was described as being able to provide a more productive environment for their co-workers due to the skills learned in the leadership HRD program.

Supervisors described leadership changes that included improved organization skills, the ability to motivate, lead teams, and delegate tasks. They also observed improvement in decision making, coordinating others, planning and facilitating meetings, and mentoring others.

Application of Adult Learning Principles

Students reported applying principles of adult learning in various ways. Examples of these applications included using professional presentation methods when delivering information to co-workers and clients. Students commented on using the techniques that facilitate learning during staff and company meetings and when dealing with external clients. Students indicated that understanding the different learning styles impacted formal and informal communication processes.

Supervisors indicated that students had gained the ability to establish / revise internal training programs that reflected effective adult learning principles. Students not only managed the training programs, but also expanded their roles as facilitators. Supervisors also reported that students demonstrated the relevance of adult learning theory to functional management skills.

Application of Facilitation and Instruction Skills

Many students reported using facilitation and instruction skills learned in the HRD program by assessing and altering their current training programs and developing new programs. Some students developed curriculum and manuals to facilitate learning. Others altered the employee evaluation process within their workplaces.

Supervisors commented on the students' ability to suggest and design alternative training programs while streamlining various processes. They also commented on students' ability to identify resources to facilitate workplace learning.

Application of Research and Evaluation Skills

Students felt that their increased research and evaluation skills helped them assess various organizational needs and design effective methods to evaluate the success of programs implemented to address the identified needs.

Supervisors indicated that students made databased suggestions and decisions regarding organizational policies and procedures. Examples of this included designing performance-based job descriptions and multi-rater evaluation processes.

Application of Professional Development Concepts

Students reported that they continue to assess themselves and their competencies as their roles change within the workplace. Many continue pursuing formal and informal professional development activities in order to reach their professional demands and goals. Many reported routinely reading professional journals and participating in professional associations as a means of continuous self-improvement.

Supervisors indicated increased professionalism among the students from the HRD program, as well as the ability to identify and locate appropriate professional resources that benefited the organization.

Limitations of the Study

This study contributes to the knowledge base in HRD by demonstrating that multiple perspectives can provide powerful data regarding a phenomenon under investigation. This methodology allows the researcher to validate and contrast diverse perspectives regarding identical concepts. And finally, it goes beyond program evaluation that examines singular perspectives at the reaction level. While the results of the research are significant, the study's limitations should be considered. Specifically, this study relied primarily on self-reported information. There was no observation of reported information that would further strengthen the data.

Conclusions and Recommendations for Further Study

Aside from affirming that transfer of learning from the classroom to the workplace did occur, the underlying theme that emerged from this study seemed to suggest that the individual and the organization benefited by this ability to transfer knowledge and skills from the learning environment back to the working environment. While both supervisors and students responded to specific questions, they indicated that students were better employees as a result of attending the HRD program. Students reported feeling more qualified and confident while supervisors reported observing enhanced leadership qualities among students.

This study indicates that not only did transfer of knowledge occur, but also the application of the knowledge required synthesis of different types of knowledge. It reasonable to assume that there is a causal linkage between learning, transfer, and individual and organizational benefit. The results of this study indicates that students developed cognitively, behaviorally, and affectively as a result of learning HRD concepts and then applying these skills to the workplace.

While students and supervisors often used different words and examples to describe their perceptions of how learning transferred and was applied within the workplace, patterns across the data from both populations confirm that transfer of learning did occur. However, there is a need for further study to better understand the relationship between learning and transfer. For example, we did not investigate the conditions that the literature indicates affect transfer of learning within the workplace, nor did we examine the factors associated with the learning environment of the HRD program that may have affected transfer. A study that examines various types of support and opportunities for students to try out their newly learned skills is indicated. It would also be interesting to explore the motivational aspects of transfer of learning as well as the cognitive and environmental factors that influence this phenomenon. Exploring the impact of the methods used to teach coursework in the HRD program and socialization processes would also be advisable.

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Tactical Management of Power: The Practical Work of Negotiating Stakeholder Interests in Planning Education Programs in a Corporate Context

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The purpose of this study was to investigate how adult educators negotiate power and interests in program planning for training and development in a corporate setting. The research methodology was a descriptive qualitative study of typical program planning practices of adult educators in a multi-national corporation. The chief finding was that planners' "practical" strategic action for negotiating interests and power varied according to specific situations and how planners perceived the involvement of various stakeholders.

Keywords: Power, Negotiation, Stakeholders

Problem Statement

Much of the educational program planning literature proposes an ideal, rational model for how educational programs should get planned in organizations (e.g., Apps, 1979; Boone, 1985; Boyle, 1981; Brinkerhoff & Gill, 1994; Broad & Newstrom, 1992; Knowles, 1980; Sork & Buskey, 1986; Sork & Caffarella, 1989). Research has demonstrated, however, that the actual practice of planning and implementing educational programs differs significantly from these rational models (Cervero & Wilson, 1994, 1996, 1998; Sork, 1996, 2000).

Indeed, education planning in business and industry always occurs in specific settings – settings which are marked by a variety of stakeholder needs and interests as well as organizational opportunities and restraints. To this end, Cervero and Wilson (1994, 1996, and 1998) contend that planning is essentially a social and political activity in which people negotiate with each other to determine the eventual output of an education program. They write that "putting practice into its social context inextricably links planners' actions to the complex world of power relationships and interests" (1994, p. 28).

As a result, research in the past decade has begun to focus attention on what Sork (1996, 2000) refers to as the socio-political and ethical dimensions of program planning. Cervero and Wilson (1994, 1996, & 1998) argue that program planning must be understood as a social activity in which adult educators negotiate personal and organizational interests within relationships of power. Their research has demonstrated that stakeholder interests are causally related to which programs get planned. A number of investigations have demonstrated the centrality of negotiating power and interests in educational program planning (e.g., Mills, Cervero, Langone, & Wilson, 1995; Rees, Cervero, Moshi, & Wilson, 1997; Sessions & Cervero, 1999). From this work we can say with some confidence that we know *what* adult educators do.

Although the case studies in Cervero and Wilson (1994, 1996) and other studies offer some important insights, we know relatively less, however, about *how* HRD practitioners actually negotiate multiple and often conflicting interests in practice. Therein lies the problem that is central to this study – to uncover the specific tactics that HRD practitioners use to manage power in order to negotiate stakeholder interests in the highly political organizational terrains in which they work.

Theoretical Framework

Much of the discussion in adult as well as business education program planning literature has focused on the technical aspects of program planning (e.g., Apps, 1979; Boone, 1985; Boyle, 1981; Brinkerhoff & Gill, 1994; Broad & Newstrom, 1992;Knowles, 1980; Sork & Buskey, 1986; Sork & Caffarella, 1989) to the detriment of the

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context oriented or socio-political aspects. Indeed, the literature on negotiation has long been heavily prescriptive with little empirical evidence to show how people actually negotiate in practice. Forester (1999) and Lax and Sebenius (1986) straddle both the prescriptive and the empirical as they offer up their own views about what negotiation should look like ideally, along with evidence of how it occurs in practice. Elgstrom and Riis (1992) offer another way to understand negotiation through their discussion of substantive and meta-negotiations. Cervero and Wilson's (1998) and Umble's (1998) empirical analyses of the substantive and meta-negotiations that occurred in several case studies add strength to this perspective.

Yang's (1996) extensive analysis of the literature on power and interests lends yet another dimension to understanding negotiation. Yang (1996) and Yang, Cervero, Valentine, and Benson (1998) developed a model to help understand how planners negotiate power and interests in program planning for adult education. In developing the Power and Influence Tactics Scale (POINTS), Yang outlines seven general strategies: 1) reasoning; 2) consulting; 3) appealing; 4) networking; 5) bargaining; 6) pressuring; and 7) counteracting. Yang's analysis has helped to move the conversation from what planners do (negotiate) to the important strategic question of how they negotiate. Even with these broad strategic categories, however, we know comparatively less about how planners actually use negotiating tactics in practice.

Giddens' (1979) notion of the differences between practical and discursive consciousness proved helpful in exploring the practical terrain of actual planning. Discursive consciousness refers to the mode of cognition in which social actors are able to explicitly detail knowledge about the social systems in which they participate. This is the type of knowledge revealed by Yang's POINTS inventory. Practical consciousness, which Giddens defines as the "tacit stocks of knowledge which actors draw upon in the constitution of social activity" (p. 5), is the mode in which actors adeptly navigate their worlds on a daily basis but are, nonetheless, typically less able to articulate. That is, they are effectively able to draw upon such tacit stocks of knowledge and practice without being able to say how they do it. Following on Giddens, it is our contention that much significant, but as of yet unarticulated, knowledge about planning exists at this level of cognition.

To this end, the research has shown the following. First, program planning in adult education is an inherently political process (Cervero & Wilson, 1994, 1996, 1997 & 1998; Forester, 1989 & 1999; Sork, 1996 & 2000). Second, and because of this, planners negotiate power and interests as they manage the political landscapes in which they work (Cervero & Wilson, 1994, 1996, 1997 & 1998; Forester, 1989 & 1999). Third, planners negotiate power and interests through simultaneously employing both substantive (where they act within the web of existing power relations to construct the program's purpose) and meta-negotiations (where they act on the power relations themselves – thereby either strengthening or weakening those macro-level boundaries) (Cervero & Wilson, 1998; Elgstrom & Riis, 1992; Umble, 1998; Sork, 1996). Fourth, and based on Yang's (1996 & 1998) work, we have a better understanding of what these tactics look like. *How* such tactics (and others) are actually employed while negotiating power and interests in planning practice was the focus of this study.

Purpose of Study

The purpose of this study was to investigate *how* adult educators negotiate power and interests in program planning for training and development in a corporate setting. This study is significant because it sought to investigate what successful program planners actually know and do by examining the actual tactics and strategies used by HRD practitioners. Understanding the practical negotiation strategies employed by adult educators could be instrumental in improving program planning practice.

Methodology

The research methodology was a descriptive qualitative study of typical program planning practices of adult educators in a large, multi-national corporation which is referred to as the Warde Financial Corporation. A qualitative methodology was selected for three key reasons. The first was that the purpose of this study was to describe and analyze the social processes of program planning practice. Qualitative analyses are considered to be especially well suited for investigations of social phenomena that are descriptive, interpretive, or analytical (Yin, 1994). Second was the exploratory nature of this research. The prime author and lead researcher for this study, Christie Mabry, was not only concerned with *what* planners do in negotiating power and interests, but *how* and why they do it. Thus, these kinds of questions were best understood through thick descriptions and inductive analysis. The third reason was because of the "bounded" nature of this particular system. A bounded system is any particular system – be it an individual, an event, a situation, a program, or a phenomenon – over which the researcher has little or no control, and which is not easily separated from its context. Thus, the specific negotiation strategies of adult educators in the "Warde Corporation" are context specific, and hence idiosyncratic, to this company (Mills, 1993; Merriam & Simpson, 1995).

To this end, this study was what Merriam and Simpson (1995) call a combination of a descriptive and an interpretive qualitative study. The researchers sought to develop categories to conceptually illustrate, support, or to challenge theoretical assumptions. In doing so, the intention was to get a better understanding of the largely tacit and practical strategies that occur along this socio-political dimension.

The specific units of analysis were fourteen adult educators who worked in sites that spanned the boundaries of three different Warde Financial Corporation companies. The rationale behind this proposed selection of multiple sites within the Warde "system" was to partially account for the diversity of contexts that could be found within the different divisions within the greater Warde Financial Corporation. It was important to attempt to achieve some measure of context diversity to more closely replicate a "typical" sample of program planning practice.

Nonprobabilistic, or purposeful, was the sampling methodology utilized in this study [got a reference for this?]. More specifically, a typical case sample was the type of purposeful sampling employed in this study. Typical case purposeful samples reflect typical people in typical planning phenomena. As such, the selection criteria for adult educators for this study included the following characteristics: adult educators who possessed a minimum of three years experience in planning programs for adult education; adult educators who possessed a minimum of two years of experience with the Warde Financial Corporation; adult educators who represented varying sizes of Warde Financial Corporation businesses; adult educators who represented the Warde Financial Corporation Corporate office; adult educators who were located in differing geographic areas and field office locations; adult educators who had planned a new or major program within the last twelve months, or who were in the process of planning a new or major program.

Specifically, these sampling criteria ensured that the adult educators who were studied had a history of program planning experience from which to call upon and experience negotiating the organizational context at the Warde Financial Corporation. It was also very important that various Warde Financial Corporation businesses/sites were studied to account for some of the distinct differences that existed based on company size, geographic location, the nature of the specific business-type, leadership philosophy and practice, corporate culture, and field versus home office dynamics. Finally, it was important that the researcher was relatively unfamiliar with the particular business dynamics (the specific people, micro-politics, etc.) present in each of the businesses studied.

This study was set up such that the researcher would have multiple contacts with each subject. These contacts included a twenty to thirty minute preliminary telephone conversation, a one and a half-hour in-depth face-to-face interview, and a follow-up telephone call to clarify any questions or issues which emerged during the analysis of the data.

Of this group of fourteen adult educators, three were Directors of Education at their sites, and had somewhat different perspectives based upon their vantage points as education leaders. Goetz and LeCompte (1984) would describe these three directors as key informants. The other eleven subjects were staff trainers and program managers. As such, program planning for adult education comprised a huge percentage of their daily jobs. Indeed, in that most of them were individual contributors in the organization (i.e., they did not manage other people), their success in program planning rested on their abilities to demonstrate considerable negotiation skills in organizations where they did not possess a lot of positional power. As such, they provided a very compelling perspective on negotiations strategies that were utilized in practice.

In addition to the multiple contacts with these two levels of adult educators at three different sites, critical incident technique was also employed (Brookfield, 1986). The participants completed and returned a one to two page critical incident piece where they reflected upon a program that was particularly meaningful to them as an either extraordinarily positive or negative experience in program planning. This incident then, formed the basis of the one and a half-hour face-to-face discussion.

In addition, document analysis was employed as another way to gain methodological plurality. The documents reviewed included plans of work, project reports, memos and correspondence, notes, program files, organizational charts, program materials, and any other program-related information that might have proven helpful in understanding both the program planning process as well as the program planning goals vis-à-vis the end results.

Triangulation, as defined by Mathison (1988) as the attempt to aid in the construction of plausible explanations and fuller understandings of the phenomena being studied, was achieved by utilizing more than one data source, by pursuing multiple contacts, through use of the critical incident technique, and through document analysis.

Data analysis incorporated the constant comparative method as well as content analysis. Content analysis was employed in examining the field notes, program planning documents, correspondence, notes, memorandums, course materials, evaluations, and organizational charges. These documents were examined to compare the programs reported to what actually occurred (Patton, 1990). Given that the purpose of this study was to understand the negotiation strategies employed by adult educators on the level of practical consciousness, these two techniques were well suited because they involved inductive analysis and category building from the raw data of interviews and documents.

An important potential limitation of this study was that the researcher had been employed as a Director of Adult Education with a sister division of the Warde Financial Corporation through the data collection period of this study. To this end, the researcher may have unintentionally influenced some of the subject's responses to the interview questions. In addition, and because of the researcher's extensive knowledge of the corporate culture of the Warde Financial Corporation, the researcher might have also arrived at incorrect inferences about negotiation strategies.

This same potential limitation could also have been viewed as a significant research strength. This is so because the researcher had a high amount of internal credibility within the Warde Financial Corporation, credibility that may have helped to elicit more honest and potentially more accurate descriptions of negotiation strategies employed in practice. In addition, the Warde Corporation possessed a very strong cultural identity (an identity that was mostly derived from the Warde Chairman) that spanned all of the businesses. This broad identity could, perhaps, best be described as a "meta-culture." As such, and because of the researcher's deep familiarity with this meta-culture (norms, language, history, symbols, etc.), valuable time was not lost during the interview process describing elements of this culture, and hence the information and analysis went much deeper than would have been the case with a researcher from outside of the organization.

Findings

While Yang's "discursive" strategies were evident, the chief finding was that the "practical" strategic action of negotiation varied according to the specific situation. The planners' tactics for negotiating power and interests reflected the following phenomenon: 1) the tactics employed depended on the planners' perceptions of the stakeholders in terms of how much power the stakeholder could exercise in the situation; 2) the planners' perceptions of stakeholder power were arrayable into five separate categories along a continuum of desired stakeholder involvement (i.e., planners' perception of various stakeholder involvement ranged from "not involved" with the program on one end of the continuum to "very involved" in the program planning process on the other end); 3) the specific tactics (of which seventeen were evident in this study), then, varied according to which category the planners perceived the stakeholders to represent (see Figure 1).

In other words, the specific negotiation tactics that the planners employed depended upon what sort of involvement they wanted from each stakeholder. For example, if the planner wanted little involvement from the stakeholder (perhaps because this stakeholder could have slowed them down or possibly have hurt their efforts), their tactics might have included some form of circumvention. On the other hand (and on the other end of the stakeholder involvement spectrum), if the planner wanted the stakeholder to become personally involved in the program (perhaps as a subject matter expert), then the tactics employed might have included a direct appeal to the stakeholders' ego. The tactics employed, then (almost all at a practical level of consciousness) were done so to elicit certain behaviors from various stakeholders involved in the planning process.

In addition, the planners in this study manifested their own power by both maintaining as well as by transforming relationships of power through employing both substantive as well as meta-negotiations (Cervero & Wilson, 1998; Elgstrom & Riis, 1992; Umble, 1998). In almost every case, the planners had strongly held notions of not only what needed to be done, but also how it should be done.

They then used these tactical strategies (as outlined in Figure 1) to negotiate power and interests – practically, not discursively – among the key stakeholders in their organizations to accomplish their objectives by either maintaining or transforming relationships of power. Indeed, these substantive and meta-negotiations strategies were often used simultaneously. Cervero and Wilson (1998) write about these phenomena:

> Thus, substantive and meta-negotiations are simultaneously interwoven in daily practice...Using the metaphor of the planning table, we have shown how adult educators are always simultaneously negotiating about the important features of educational programs (substantive negotiations) and about the political relationship of those who are included and excluded from such negotiations (meta-negotiations). (p. 20)

In other words, the planners employed both substantive as well as meta-negotiations strategies to, essentially, alter the relationships of power to make it more productive for them.

Essentially, placing someone in the "low involvement" category was akin to either keeping them in the dark altogether, or at least ensuring that the stakeholder had the least level of participation as possible. Stakeholders

Figure 1. Key Findings from Interviews with Program Planners

Stake-holder is: **Very Involved**	**High Personal Involvement** Stakeholder is personally involved (i.e., time, expertise, etc.	**N & I Tactics:**	• Appealing to egos and subject matter expertise • Engaging in some sort of exchange or horsetrading • Applying subtle pressure – a.k.a. "the velvet hammer"
	Mobilizing Resources Stakeholder mobilizes resources including people, $, time, etc.	**N & I Tactics:**	• Employing a "one-down" strategy • Making the business case for a program idea • Pushing stakeholders' "hot buttons"
Moderately Involved	**Buy-In** Stakeholder understands program and buys-in	**N & I Tactics:**	• Consulting with and seeking critical feedback • Making the "buy-in" process more convenient by walking people through the program • Proactively seeking out and sharing positive feedback • Employing a "one-up" strategy
	General Program Awareness Stakeholder is aware of program and is hearing good things about it	**N & I Tactics:**	• Forming committees to "evangelize" to their peers • Using organizational communication vehicles to publicize the program • Getting to "mass" by running a successful pilot program
Not Involved	**Low Involvement** Stakeholder is not aware of what is going on / is not rendering any harm to program	**N & I Tactics:**	• Flying "under the radar screen" such that actions aren't visible • Sharing the smallest amount of information possible & designing alone • Setting the situation up for success by narrowing the universe of options • Avoiding people – "apologize later vs. ask for permission"

** "N & I" tactics indicates negotiation and influence tactics in this category were often ones who possessed enough power to potentially hurt the program planning efforts. Indeed, a surprising number of the planner's managers fell into this category. Their tactics included: "flying under the radar screen" or keeping a low program profile to avoid unwanted attention, sharing the smallest amount of information (i.e., not sharing all of the "hairy details") possible and designing alone or with as few people as possible, setting the situation up for success, and by avoiding people and "apologizing later versus asking for permission." Given that the planners in this category did not seek to alter the fundamental relationships of power (meta-negotiations), their negotiations tactics were more substantive in nature.

Moving along the involvement axis, "general program awareness" was where the planner wanted the stakeholder to be aware of the program and to hear good things about it. The only level of involvement that the stakeholders in the general program awareness category needed was to be generally aware, in a positive way, about the program. Good program public relations seemed to be a key success factor for many of the programs. Thus, it was important to many of the planners that the "word on the street" be positive. When planners wanted stakeholders to be generally aware in a positive way about the program (general program awareness), their tactics included: forming committees to "evangelize" to their peers in their respective departments (meta-negotiations), using organizational communication and marketing tools (substantive negotiations), and "getting to mass" by running a successful pilot program which generated enthusiasm in the organization (substantive negotiations).

Stakeholders in the "buy-in" category were expected to be moderately involved with the program. This moderate involvement included understanding the program, and buying in to its objectives. Understanding and buy-in were key factors in ensuring that these stakeholders could speak to the merits of the program if they needed to, as well as could defend any specific programming actions. Again, many of the managers of the planners fell into this category. These managers were often not involved with the programs on a daily basis, but needed to be aware of them if the situation called for them to explain why certain programming decisions were made. "Buy-in" category stakeholder involvement included the following tactics: consulting with and seeking critical feedback from key stakeholders (substantive negotiations), making the buy-in process more convenient by walking people through the program (substantive negotiations), proactively seeking out and sharing positive feedback (meta-negotiations), and employing a "one-up" strategy where planners had more powerful people in the organization marshal support from people who were even more powerful than them (meta-negotiations).

The "mobilizing resources" category included the stakeholder mobilizing resources for the program such as money, people, time, etc. This was a much more significant level of involvement on the part of key stakeholder. As such, the negotiation tactics intensified. When planners wanted the stakeholders to mobilize significant resources for their programs in this category, the tactics included: employing a "one-down" strategy in which high level people influenced lower level people to mobilize resources (meta-negotiations), and through making the "business case" for a program idea (ideas which the planners had, more often than not, intuitively arrived at but they needed to validate for key stakeholders) through providing data, anecdotes, stories, etc., (substantive negotiations), and by understanding and pushing stakeholders "hot buttons" (meta-negotiations).

The "high personai involvement" category constituted the most intense level of personal involvement on the part of the stakeholder. As a result, all of the negotiations strategies sought to transform relationships of power through meta-negotiations. Stakeholders in this category were expected to get personally involved in the program through expending their own time or expertise. For example, high personal involvement stakeholders often helped develop key content modules for programs and often facilitated these modules. Key tactics employed to generate this level of program involvement included: appealing to their egos / subject matter expertise, engaging in some form of exchange or horsetrading and articulating the W.I.F.M. (what's in this for me) for each stakeholder, and by applying subtle pressure (a.k.a. "the velvet hammer").

Implications for Future Research

Perhaps the most pressing implication for future research centers around the ethics of program planning. When planners are faced with multiple and often conflicting interests, whose needs should they serve? Clearly, the organizations for which they work will almost always demand that the needs of those with the most power be served first. In response to this question, Cervero and Wilson (1994 & 1996) advocate that planners should employ a substantively democratic planning process in which the needs of all affected stakeholders should be considered. In reality, however, how do planners make those difficult decisions in the politically intricate settings in which they work?

A second and major implication for future research has to do with the replicability of this study in other kinds of organizations. These negotiation tactics were effective within the context of the Warde Financial

Corporations – a large, mature, financial services corporation with a very deeply embedded set of corporate norms. However, it is unknown whether or not they would be effective within a smaller manufacturing firm or a high-tech firm, to name just a few examples.

A third implication for future research centers around the use of covert practices within organizations. Since this study reflected the use of a number of covert practices (flying under the radar screen, avoiding people, getting more powerful stakeholders to appeal to less powerful ones), it would be interesting to explore the theory and the practice behind the use of covert practices in organizations so to make connections with adult education program planning practices.

Contributions to New Knowledge in HRL

As has been well documented, the scope and impact of adult education activities upon individuals and upon the communities in which they live is both wide and deep. However, adult educators in their roles as HRD practitioners, as a whole, continue to occupy a somewhat marginalized place in the organizations in which they do their work in that they typically do not possess large quantities of organizational power. With the exception of educational institutions, most adult education activity occurs on the periphery of organizations and is typically not the central product or focus of these organizations. As such, adult educators walk a precarious line as they attempt to do high quality work that is not only desirable and acceptable to the organizations which pay their salaries, but is congruent with their personal values and visions of "what could be" as well. Indeed, the tension created in the attempt to reconcile these factors constitutes a key dilemma for most adult educators.

A potentially key contribution of this research to new knowledge in HRD, then, is that it suggests a number of specific tactics which planners and HRD practitioners can employ to, essentially, reconstruct these relationships of power so that they can be more effective in planning educational programs in their respective organizations. In doing so, this study affirms Isaac's (1987 & 1992) definition of power as "the capacities to act possessed by social agents by virtue of the enduring relations in which they participate" (1992, p. 27). As such, the planners in this study used their "powers to act" to reconstruct existing power relationships through both substantive and meta-negotiations to make their respective planning situations more productive for them.

Adult educators and HRD practitioners often vie for seats at what Cervero and Wilson (1994a, 1994b, 1996, 1997) refer to as the metaphorical as well as literal organizational "planning table" – a table from which they are often distanced due to their lack of relative organizational power. The potentiality, then, for adult educators and HRD practitioners to replicate some of these tactics so to reconstruct power relationships is tantalizing indeed. Indeed, adult educators might not only find that their seats at this metaphorical planning table are more powerful and productive ones, but they also may find that these more powerful seats allow them the space and the leverage to do the kinds of work that is most congruent with their own personal values.

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Understanding the Experience of College Graduates during Their First Year of Employment

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Understanding the experience of graduates during their first year of employment improves college recruitment practices, as well as organizational socialization processes. This study recorded the experiences of eight college graduates, who were employed by a major manufacturer headquartered in the Midwest. Two unstructured interviews were conducted with each participant to gain insight and understanding of their first year experience. Nine themes were identified and are discussed. Recommendations are offered and research implications are discussed.

Key words: College graduates, First year of employment, Organizational socialization

The transition from college to first job after graduation is significant. The literature is ripe with strategies and tips for assisting college graduates in landing their first perfect job. Further, studies have been done describing the challenges organizations face in attracting and hiring college graduates, and graduates' expectations for their first employer (Bewayo, 1990; Corley, 1999; Losyk, 1997; Montana & Leneghan, 1999). Authors have also articulated strategies to assist students, and their new organization, in better managing the transition by offering ways to ease the transition for both (Asher, 1999; Holton, 1999). The literature is far more limited, however, in describing the work experience once graduates have actually begun working. While some have surveyed graduates on the socialization process they experienced becoming familiar with their new employer during their first year of employment (Gardner & Lambert, 1993; Holton, 1995; Nicholson & Arnold, 1991; Richards, 1984), few have captured the feelings, frustrations, and challenges of the experiences from the individual's perspective.

What is the first job experience like for them? What do these young people feel during their first year of employment? What challenges do they encounter in adapting to not only their selected organization, but in many cases their new city and their new home? How do they make friends when they have moved to a new community where they know virtually no one? My research explored these questions.

Significance to HRD

Understanding the first year experience of college graduates is critical to the organizations hiring them. Human resources managers can gain insight into their perspectives of reality versus expectations that may have been discussed during the recruiting process. Human Resource Development (HRD) professionals need to understand this group of employees in order to provide them with the development and coaching needed to be successful in their selected organizations, both immediately and over their longer term employment. Additionally, a study that examines the experiences of newly hired college graduate offers potential insights to the company's process for orienting new employees to its culture, norms and practices. Holton (1995) called this process "organizational entry" and suggested that its responsibility rests clearly with HRD. While the results of this study cannot be generalized or transferred to another organization, understanding the experience of this particular group of first year college graduates provides valuable knowledge and perspective about the organizational entry. This knowledge provides opportunities for improving or modifying practices within the organization around college recruiting, onboarding orientation, and employee development.

College Graduates and the First Year Work Experience

This research adds to what others have already discovered about the first year work experience. Rayer (1998) articulated the difficulty new graduates faced in adjusting to their new role of employee and their frustration in learning the underlying cultural norms and unwritten rules of their new organization. Holton (1995) found that while the first year experience was positive and productive for some graduates in their first jobs, it was difficult,

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stressful and less successful than desired for others. Gardner and Lambert (1993) reported a considerable difference between their pre-work expectations and the experiences on the job, being less challenged, using few skills, having less autonomy, and receiving less feedback than expected. Others conducting similar studies include Richards (1984) and Nicholson and Arnold (1991). To add further understanding to this area, the following question was pursued: What is it like working in a large corporate environment as your first job following college graduation?

Method

Individuals participating in my study were working in software engineering jobs, performing tasks such as requirements definition, software design, and testing for new products or enhancements on existing products. They all worked within a single division of a large manufacturer headquartered in the Midwest. All had been employed with the company for roughly eight to ten months when I first interviewed them. They were hired directly from college and ranged in age from 22 to 25 years old. Using a structured interview guide, eight individuals were interviewed. The interview began by asking each individual why they had selected their organization, and then they were asked to describe their experience.

Each interview was transcribed, read and reread to identify key ideas about their experiences. Individual key ideas were compared to identify themes that were central or common to the overall experience. Each theme was named and described. Nine themes emerged. Once each theme had been named and fully described, the researcher returned to the participants to review them. During the second interview, participants provided additional perspective, correction and further insight into the experience. Many were surprised that, while they had not necessarily articulated one aspect (one identified theme) of the experience during their own interview, it was indeed part of their first year experience. The nine themes identified are grouped into three major categories: work environment, friendship, and performance.

Findings--Work Environment

Un-stressful and Easy-going Work Environment

Participants described a work environment that they enjoyed and found very comfortable. It is easy-going and unstructured. They were expecting to work with highly stressed people and being stressed themselves, working under tight deadlines, and being carefully monitored and managed by someone else, most likely their supervisor. They were relieved to discover that none of these characteristics were true about their work environment or the company they had joined. Participants described the reasonableness of the environment. "You have a good pace, good expectations here. You actually have deadlines, but nobody's pounding us over the head because we need to get things done, at least not in my group." This was a surprise to them. They had expected work to be highly controlled, being required to punch a clock or being watched constantly, particularly about the hours they worked; they didn't expect to be able to set their own work schedules or go rollerblading during lunchtime.

The Literature Perspective on Easy-going Work Environment. Raines (1997) devoted an entire chapter to describing Generation X's preferred work environment--their desire to work in a flexible, low stress environment. The environment that the participants in this study work in fit all her criteria: casual and friendly, clean and orderly, up-to-date technology, collegial, a place to learn, high level of freedom, and functional. Losyk (1997) and Montana and Leneghan (1999), who have also queried Generation Xers on expectations of their employers, have concluded that they prefer a work environment that offers a great deal of freedom to work with minimal supervision. Losyk added, however, that while graduates are fearful of being micro-managed, they want guidelines and access to management should they have questions or need direction.

Frustration with Much to Learn and No Structure to Follow

Participants discovered that there was a lot to learn in their new job and about their new company. This particular organization does not offer a formal training program for its college graduates, but rather urges them to learn through informal means about the business, its products and industry, and the tools they will be using to do their job. This learning is very unstructured, and lasts roughly three months. Participants were encouraged to ask questions of longer term employees, read old textbooks, attend a myriad of classes offered by the organization, and "play" with the technology to discover how it works. Very little structure was provided during this initial learning period, and minimal work was expected to be produced. The unstructured environment, where there was a great to deal learn about how things were done, and yet very little formal guidance was given about how to navigate through it was both surprising and unsettling to the participants I interviewed. They were surprised that a company as large as theirs did not have a structured way to show new graduates how and where to focus their efforts. Their frustration in the maze of information was further confounded in other areas, as well. From their perspective, the company gave them little guidance in navigating through non-work related tasks, such as finding apartments, working through benefit options, or finding how to participate in the company's intramural golf league. Yet, while this was frustrating, they expressed a great deal of satisfaction once they had navigated through yet another unknown challenge.

The Literature Perspective on Learning Work and Non-work Related Practices. While participants generally enjoyed the unstructured work environment, they found the lack of structure difficult when they needed to learn how to do something or gain organizational information. The process of adapting to the new organization is referred to in the literature as organizational socialization, the process by which individuals acquire the tasks, social knowledge, and behaviors needed to successfully participate as a member of their new organization (van Maanen & Schein, 1979). Related research supports Generation X's preference for a highly unstructured, flexible work environments (Losyk, 1997; Montana & Leneghan, 1999; Raines, 1997), yet, the unstructured environment under which my participants were initially socialized caused frustration, stress, and confusion. Asher (1999) provided some explanation for this paradox by highlighting the differences between the limited structure in many corporate settings with the highly structured learning environment of colleges that use syllabus-driven learning outcomes and concrete measures derived from term papers and exams. The dramatic contrast of the two environments shows how easily new graduates can feel confused or off track in their new work environment.

Findings—Friendship

Different Than School To Make Friends

Participants described spending a lot of time getting to know people. Their actions were deliberate and focused, enabling them to meet friends. They observed very quickly that people interacted differently at work than they had at school. "Everybody kind of stays in their cube and does their thing, " said one individual. "It's really tough to describe because it's not really overt, [there isn't] a lot of chatting and going back and forth," said another. Participants described their surprise and even sadness at realizing how much younger they were than most of their co-workers, "at first, it seemed like everybody was twice as old as me." When I asked why this mattered, one explained simply, "You just like to hang out with people like you." Despite the reality of a different social environment, participants described taking a proactive and productive manner for learning to fit in and establishing friendships. Friendships happened; they discovered, through a series of informal, unplanned events.

The Literature Perspective on the Difference in Making Friends in the Workplace. "The workplace is an important locus of friendship formation," asserted Fehr (1996, p. 46). Work tasks often require friendly cooperation and collaboration, and the physical proximity of co-workers in cubicles allows for frequent interchange of ideas that are work related, and non-work related, and similarity of backgrounds and work departments all promote workplace friendship formation. Further, friendships, she stated, are more likely to occur from one's own personal network, being introduced to a friend of a friend. So it is not uncommon, as the participants in this study described, for acquaintances that are introduced in the work setting to introduce work friends to other members of their social network. Carbery and Buhrmester (1998) interviewed 180 undergraduate and recently employed graduates, who were single, married with no children, or married with children on the social provision friends, partners or parents provided. Social provisions included such things as companionship, intimate disclosure, affection, nurturance, emotional support, and guidance. "Subjects in the single phase reported friends as the single most frequent providers of companionship and intimate disclosure," (p. 401) they found. As new workers, they have left their college relationships behind; for this group of participants, they left their friends literally behind in other cities, and must now build their new support structure and network primarily through their contacts at work.

Friendship is Critical to Feeling Settled and Belonging

Participants described friendship and friendship making as a key component of their first year experience. They described actively seeking others out, and inviting new comers into their group of friends to help others in the settling process. Friendship is critical to this group. They talked about it a great deal during both interviews. When asked why friendship was so critical, one individual responded, "It provides a sense of belonging, for one thing. Fun. Lack of boredom. With friends you experience new things, experience things in life. You share things with your friends." Many talked about friendship making as a journey. All deeply rely on their friends for support, encouragement, and companionship. I asked one individual what the friendship support structure provided. He said, "It's a sounding board, pretty much. Work related, life related. Have people to share your experiences with and gain commonality. You understand each other and that allows you the opportunity to help other people. So I think that it's kind of give and take."

The Literature Perspective on Friends and Belonging. Several research studies support this theme of friendship and the belonging it brings to young adults. Rose (1985), for example, interviewed 90 undergraduates and recently hired graduates, asking them what their friends do for and with one another. She discovered eight functions of their friendships: acceptance, help, loyalty, availability, recognition, intimacy, and companionship. Additionally, she discovered nine methods for formation and maintenance of friendships: physical proximity, demonstration of concern, willingness to make sacrifices, length of contact, sharing of ideas, commonality of interests, initiation of affection, sexual interests, and unwillingness to form friendships. Clearly, friendships are critically important to young adults. The Carbery and Buhrmester (1998) study referred to earlier, supports this need as well. They found that the reliance on friends to satisfy social needs is greatest during the single phase in early adulthood, and is reduced significantly during marital and parenthood stages that occur later in life. They reported, "subjects in the single phase reported friends as the single most frequent providers of companionship and intimate disclosure.," (p. 401).

Moved to Find a Better Sense of Belonging

Nearly all participants moved during their first year. They moved to a place they described as being better for them. They moved to be in a neighborhood or area that housed more people like themselves. They liked the action in a particularly younger part of the metropolitan area: it was diverse, close to everything, and attracts people like themselves. Moving lead to them feeling even more connected to their new city. They expressed frustration that the company provided no insights into where college graduates might prefer living, and which communities to avoid. This researcher was unable to uncover research studies related to this theme. However, perhaps it isn't as significant as those of us who have been settled in one place for years may question. Said one, when I asked why everyone moved, "We just move. In college we lived somewhere different every year. So if we don't like where we're living, we just find somewhere else."

Findings—Performance

Unsure of Own Performance Due to Lack of Feedback

The first theme in the performance area is the uncertainty the participants they felt because they received little structured feedback from their immediate supervisor. Receiving frequent, job-relevant feedback was a clear expectation of the college graduates I interviewed. Said one, "My year one is coming up, but you know, not once has my manager said one thing to me about my performance, negative or positive." Participants in my study had high expectations for receiving frequent and ongoing feedback from their boss. They easily described why they had this expectation– well-established feedback systems were followed in every class in college and in high school. One individual articulated the experience, "in school, you receive frequent and immediate feedback. You are assigned homework and receive a grade. You take a test and receive a score. Grades provide a periodic measure of how you are progressing on a topic. This is true for both high school and college." Not all individuals reported a lack of feedback. A few of the participants described their experience as just the opposite. They received focused, specific feedback and frequent interaction with their manager. Said one, "Everybody has been really helpful in helping me come up with my goals, helping me gain understanding in what it is that I want to do." They knew where their performance was satisfactory, and they knew where they should concentrate their efforts.

The Literature Perspective on Feedback Expectations. Many who have conducted studies on the first year experience following college graduation have not specifically reported the need for frequent, job-specific manager feedback (Gardner & Lambert, 1993; Holton, 1995; Montana & Lenaghan, 1999; Nicholson & Arnold, 1991). These studies focused on the degree of employee satisfaction or organizational commitment that occurred during the graduate's first year of employment. Others, however, have identified this need. Rayer (1998), for example, reported the experience of seven college graduates during their first three month of employment following graduation by asking them to record their work experience through daily journaling. Her participants reported a similar frustration and sense of uncertainty because they did not receive regular feedback from their supervisor. Additionally, Holton and Russell (1999) reported a strong predictor between the graduate's experience in institutional preparation, informal training, introduction to other people in the organization, and their initial feedback seeking behavior to the attachment they felt with their organization one year after beginning employment.

Guilt of not Producing

The division within which I interviewed hires 20 to 25 undergraduates a year. When hired, new graduates are generally knowledgeable about the division in which they will be working, but not about their specific job responsibilities. The company does not offer a structured training program. Rather, it expects new hire graduates to spend their first few months learning--getting acquainted with company's processes, procedures and products, learning the software and hardware environment, and discovering about particular projects that are underway. This approach offers freedom and flexibility. Individuals in my study chose this company over others that offered more highly structured new graduate training programs, such as the Big Five consulting firms, or regimented rotational programs. While they knew their initial learning would be informal, they found it confusing and unsettling. Many participants described their first few months of employment as slow, and they spent a lot of time learning. This felt uncomfortable. While they knew they would not be entering into a structured training program, they were surprised that there was virtually no structure to guide their learning. Said one, "What did I do every day? Try to figure out what I was supposed to do which I found out was nothing. It's sort of weird, you know"

The Literature Perspective on not Being Productive. This theme is difficult to find in the literature. In the studies noted earlier on college graduates during their first year of work (Gardner & Lambert, 1993; Holton, 1995; Holton & Russell, 1999; Montana & Lenaghan, 1999; Nicholson & Arnold, 1991; Rayer, 1998), this particular theme is not identified. Other literature, however, hints at this theme. Holton (1999) wrote an article intended to assist new graduates settle into their new organization quickly. He urged new graduates to focus first year goals on more than just productivity. He asserted that while productivity goals are important and reasonable, knowledge and skill development must also be one's focus. Graduates must also spend time learning to fit in and gaining acceptance and respect from co-workers, he suggested.

Gratification Finally to Contribute

All participants described eventually moving from the learning mode to actually producing the work they thought they were hired to produce. It happened gradually. Most described getting to a certain point in the year where the pieces that they had been learning and the few work tasks they had been given to do started to make sense. Two key feelings were expressed: relief to finally be doing something meaningful, and elation with the results they had produced. Many said it took several months to get to a point where they felt they finally had contributed something meaningful to their organization. Participants described satisfaction and personal reassurance that they would actually be working, not just reading materials during their tenure with the company. Said one individual, "after six months, I started to really accomplish some things that I can be proud of and I feel like I've come a long way in that year.... I'm starting to earn that paycheck." Some described it coming, not all at once, but gradually over time. I was unable to find any published research or anecdotes related to this theme of college graduate's need to contribute during their first year.

Personal Satisfaction and Growth in the Overall Experience

The final theme sums up the year's experience: it has been positive, productive, and participants have grown a great deal during the year. "I've actually liked it more than I thought I would," said one individual. "I'm liking it more though as I stay with it," said yet another. During the year they discovered the world of work. Said one, "I've learned what it's like to make a living." However, many described the work as not being as challenging as they had expected. Participants described a great deal of satisfaction with themselves during the year. They were surprised at how enjoyable and satisfying their accomplishments were. They described growing a great deal during the year: managing their own apartment and finances, moving to a new city, contributing and being sought out for advise, gaining insights into what its like to work day-to-day. One individual summed it up as follows, "Overall, [the year] has opened my eyes to what the real world is, as well as giving me a chance to contribute."

The Literature Perspective on First Year Satisfaction. This theme, satisfaction in the overall experience, has been researched in a number of studies looking at college graduates during their first year of employment. Holton (1995) surveyed 378 college graduates during their first year of employment, and found a wide range of relative satisfaction with the overall experience in many college graduates. He reported a mean of 4.05 (on a scale of 5) suggesting that many participants experienced a highly satisfying experience. He pointed out, however, that the standard deviation in the sample of .71 suggested that many respondents had unsatisfying experiences, as well.

Discussion

This study offers a number of insights into the college graduates' experience. While the results are not generalizable to any population, they offer awareness to those who work with and employ college graduates. Some of the insights I gained from the research are discussed below.

I entered this study thinking I had a good understanding of their first year experience, my research revealed that there are many aspects of their experience with which I was unaware. For example, I had never realized the criticality of friendships during this period in their lives, nor did I realize that the source of their friendships came primarily from their workplace. I overlooked this aspect, perhaps, because I married immediately after graduation and had a different perspective about workforce friendships than the mostly single graduates that I interviewed. (See Carbery and Buhrmester (1998) for related research.)

I was also struck by their struggle to figure things out and for sources of reliable information in their new organization. The individuals in my study were bright, articulate, and academically accomplished. Generation X literature cited in this study (Hornblower, 1997; Losyk, 1997; Macalister, 1994) clearly stated that young adults demand freedom and flexibility and reject a good deal of structure. Yet, when the organization provided them with just that, they were frustrated, confused, and surprised that a company as large and as successful as theirs did not offer a more formal socialization process.

In reflecting on the experience of conducting this study, I am very satisfied with the methodology I selected for this study. Like many United States' academicians, I was educated to appreciate quantitative research approaches. The hermeneutic phenomenology approach I used did not reveal statistics or trends, but, rather, it allowed me to hear, perhaps for the first time, the stories and the experiences that occurred beyond the statistics and the quantitative studies that have been reported in the past. The results produced two new themes--guilt at not producing and moving to find a better sense of belonging—themes that I was unable to find previously documented in studies relating to college graduates. Additionally, my study yielded insights and depth of the experience that were not necessarily captured in other college graduate studies. For these reasons, I have concluded that there is a necessity for using both quantitative and qualitative research to understand more fully an organizational issue, an issue such as the first year experience following graduation.

The themes in this study were described earlier. While each stands on its own, when they are looked at in total, they offer additional perspective in describing the first year experience. Three cross-theme reflections are offered: (a) Many (Asher, 1999; Gardner & Lambert, 1993; Holton, 1995; Nicholson & Arnold, 1991; Rayer, 1998) have described the transition from college to work as significant. Yet, speaking with individuals from my study, they don't describe it as significant. Rather they see their first job as the next step in their life's journey. The year was full of transition: many were living in a new community, all held their first fulltime, long term job, all were developing new friendships, and were adjusting to the reality of spending most of their day working, rather than doing other activities they enjoyed. (b) The most significant insight for this researcher was the criticality of friendships. As I was reading and rereading the transcripts, I was struck how often they talked about the social environment, making friends, and how different work life was from school life. They weren't describing these discoveries as necessarily bad, just different. When I tried to understand this more fully, participants frequently described the highly social environment of campus life. The Carbery and Buhrmester (1998) study on friendship making in young adulthood affirmed the participants' need and desire for friendships at this point in their lives. "Friendships reach their peak of functional significance in the network during the single phase of young adulthood" (p. 405). (c) The organization's willingness to give new hires a long time to "learn the ropes" has business merit. It gives new graduates time to adjust and conform to organizational practices before being relied on to deliver to deadlines on critical projects. Yet, it was clear that graduates were uncomfortable with the non-producing phase of their employment. They came to the organization ready to design requirements, code programs and test features. They did not expect to spend their first few months learning about a myriad of seemingly unrelated topics, particularly when the learning followed little or no structure.

Recommendations

This study provides a number of possible recommendations to the organization that employs the participants in this study. It also offers a perspective for soon-to-be college graduates to consider. It also identifies opportunities for further research.

Recommendations to the Organization

As the individuals whom I interviewed were not statistically selected, results from this study cannot be generalized to any group. However, the insights gained from this study should be carefully considered by the organization that employs the participants. The organization may benefit by examining these findings in conjunction with insights gained through other means, such as exit interviews or employee opinion surveys, to determine whether the recommendations offered below are plausible. I suggest the following: (a) *Establish peer mentors*. The organization currently assigns an experienced engineer to every new graduate engineer. This practice is not uncommon, and mentors tend to focus on career development issues. Graduates during their first few months of employment, however, tend to focus less on long-term career development issues and more on not making themselves look foolish and just figuring things out. (b) *Facilitate friendship making*. Those I interviewed expressed frustration that the organization spends a great deal of effort courting interns, their future new graduates, but does nothing to connect new hires to each other once they become fulltime employees. Assistance in friendship making could be inexpensive and could be managed by former graduates themselves, a picnic or dinner in the middle of the summer could not only facilitate young people meeting each other, but it could also reinforce to new hires that they had selected the right organization. (c) *Provide a learning framework*. Participants were not looking for a great deal of learning structure; many said they were simply looking for a picture of how things fit together. A first year learning framework could be a simple list posted on the company's intranet identifying learning outcomes at various points throughout the year, or it could be a packet of electronic information that provides reference information in a number of areas. It should include areas of focus during the first month, three months, six months, and year and identify learning outcomes for each timeframe. Additionally, the framework could include contact information and reference points for professional affiliations, as well as non-work related information. (d) *Engage college new hires*. Organizational members, not just an employee's manager, would be well advised to be aware of new graduates and assist them in little ways with their transition. Simple interest and conversation can help them with their transition.

Recommendations to Future Graduates

This study also provides information about the first job experience that may be helpful to future graduates. For example, this study points to the fact that there is a great deal to learn in a new organization, and much of what needs to be learned is not written down. This is very different from college, where every step in the learning process is clearly laid out. Additionally, the study discussed that the composition of the workplace is very different from the environments to which college students are accustomed. Participants in this study came to realize that not all employees wanted to be friends. Finally, many participants discussed the lack of feedback they received. Graduates so often focus their job search on impressing potential employers. After conducting this study, I would encourage soon-to-be graduates to continue to focus their job searches, but also to interview friends who are now full-time employees to discover their experiences.

Opportunities for Further Research

This study invites additional research. Any of the nine themes could be researched more fully. For example, research could be explored on the friendship themes to determine whether they are consistent in many college graduates or unique to the eight I interviewed. Additionally, data could be collected from the participants' managers to ascertain whether they believe they are providing their new hires with adequate feedback. Research could also be conducted on the themes that offered little if any related research. While all of these research possibilities are compelling, I suggest pursuing the same study in another organization, an organization that has a strong, yet different culture. Partnering with an organization that employs highly standardized training programs and predictable work progression, such as a large consulting firm or even the U. S. Marine Corps, might provide contrast to the themes that emerged from this particular study

Summary

This article reviewed the study I conducted on understanding the experience of college graduates during their first year of employment. It articulated the research method I followed and provided a brief review of the nine themes that were discovered. It discussed a number of insights I gained from the research. These insights included personal reflections from the researcher, perspectives on the value of qualitative research as they relate to the first year employment experience, and consideration of the cross-theme perspectives on the entirety of the first year work experience. I then discussed recommendations to the organization that hired the participants in my study, and recommendations to future graduates. Finally, I concluded the paper by describing opportunities for future research.

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The Experiences of HRD Professionals Participating in Continuing Professional Development in Taiwan

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The purpose of this study is to describe and interpret the experiences of Taiwanese human resource development (HRD) professionals participating in continuing professional development (CPD). Using hermeneutic phenomenology as a methodology, the researcher conducted face-to-face conversational interviews with 14 volunteer participants. Three major themes emerged from thematic analysis: (a) "I felt changes," (b) "I felt a drive for learning and development," and (c) "I felt CPD was part of my working life."

Keywords: HRD Professionals, Continuing Professional Development, Taiwan

Taiwanese economic development has caused a transition in the economic structure from labor-intensive industries to capital- and technology-intensive industries (Lee, 1995). To maintain a competitive advantage, and to develop Taiwan as an Asia-Pacific Regional Operations Center and as a Technology Island, both the Taiwanese government and private enterprise pay increasing attention to developing corporate human resources. In Taiwan, the role of human resource development (HRD) is much more important than ever. As McLagan (1989a) noted, HRD professionals assume increased responsibility to "integrated use of training and development, organization development, and career development to improve individual, group, and organizational effectiveness" (p. 7). Due to the accelerating pace of economic, social, and technology change, and to ensure the smooth execution of their professional duties, most Taiwanese HRD professionals are aware of the importance of maintaining, broadening, or raising their competencies through continuing professional development (CPD). In the modern Taiwanese workplace, it is essential for HRD professionals to participate in CPD; it has become an important part of their working lives. This hermeneutic phenomenological study was conducted to gain a deeper understanding of the nature and meaning of the lived experience of Taiwanese HRD professionals participating in CPD.

Problem Statement

Recently, human resource development in Taiwan has received much attention and recognition for its value from the business sector, academia, and the government (Chen, 1997). During the 1990's, many studies were conducted that were related to Taiwanese HRD (Kuo & McLean, 1999). However, most of them were positivistic, and none focused on HRD professionals' continuing learning and development. Since little was known about Taiwanese HRD professionals participating in CPD, the purpose of this study was to explore, describe, and interpret the experiences of Taiwanese HRD professionals participating in continuing professional development. It attempts to explicate and understand the structures of meanings of this unique experience. As a researcher, I was interested in textual reflection on the lived experiences, with the intent to increase our understanding of HRD professionals' CPD. This study uncovered the meaning of those lived experiences to HRD professionals and the nature of these phenomena.

Theoretical Framework

No preconceived notions, theories, or frameworks guide researchers as they conduct phenomenological research (Creswell, 1994). This section addresses some models and concepts for CPD; in order to study the essential structures of the lived experience, it brackets the researcher's beliefs, prejudgments or prejudices.

What Is CPD?

Continuing professional development is often used interchangeably with the terms "professional development" or "continuing professional education." There are several definitions of CPD; it is helpful to review

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those important definitions to clarify the thoughts about what CPD means. Chalofsky and Lincoln (1983) define professional development as "a process of keeping current in the state of the art, keeping competent in the state of practice, and keeping open to new theories, techniques, and values. It is related to present and near-future positions and usually based on work objectives" (p. 21). Chalofsky (1990) emphasizes that CPD is a continuing process, especially in the HRD field where new theories, techniques, and approaches constantly emerge. McCullough (1987) defines professional development as "the process by which individuals increase their understanding and knowledge, and/or improve their skills and abilities, to perform better in their current positions or to prepare themselves for a position to which they can realistically aspire in the near future" (p. 37). The American Society for Training and Development (ASTD) defines professional development as "the ongoing growth of knowledge, skill, and values through deliberate learning efforts to enable individuals to more competently perform their professional roles, support their organization's objectives, and contribute to the evolution of the profession" (McLagan, 1989b, p. 57). Woodward (1996) states that "the term CPD describes learning activities that are undertaken throughout working life and are intended to enhance individual and organizational performance in professional and managerial spheres" (p. 1). According to the above definitions, two key features about CPD are identified: (a) CPD is a continuing learning and developing process by which professionals maintain, broaden, or raise their knowledge, expertise, or competencies through their working lives; and (b) the purpose of CPD is to improve individual, organizational performance, or both.

Models Related to CPD

As Nadler (1981) noted, "the value of a model is that it enables us to communicate ideas" (p. 73). No single model is meant to represent all facets of the field; rather, each model presents its author's concept from that person's perspective, and makes a unique contribution to the professional field of HRD. Two CPD models merit more complete description and analysis.

Nadler's Model for Professional Development. Nadler (1981) constructs a model that is essentially directed at practitioners who are internal to an organization. His model for professional development is based on the following assumptions: "(a) the core of the field of HRD is in learning; (b) an HRD practitioner must know more than learning; (c) most HRD practitioners entered the field through other routes; and (d) the field of HRD is changing" (p. 74). Nadler (1981) identifies HRD practitioners by looking at three variables: activities, categories, and levels.

1. Activities: The three major roles of HRD professionals and their major activities are learning specialist, human resource administrator, and organization consultant.

2. Categories: There are three categories for HRD practitioners. Category 1 is professionally identified. In this category, professionals are cosmopolitans who take their leadership from HRD professional organizations. Category 2 is organizationally identified; its practitioners are those who work for an organization and have been temporarily assigned to HRD functions. Category 3 is comprised of collateral duties; it consists of those people who do not spend full time in HRD but are involved in HRD operations.

3. Levels: Three different levels of competency are labeled as basic, middle, and advanced. However, Nadler has not made clear distinctions among these levels.

This model can assist HRD practitioners to understand themselves and their organizations. As Nadler (1981) noted, using this model, practitioners could identify what they want from the job and from the HRD field. "The model allows practitioners to identify where they are now, and where they might go in the future. It helps them clarify their own growth needs" (pp. 83-84).

Chalofsky's Professional Self-Development Model. Chalofsky's model is a fairly simple process that is based on the premise that "HRD professionals can have a great measure of control over their own growth" (Chalofsky, 1990, p. 13.5). The model consists of eight linear steps in the circle and one step is common to all in the center. Step 1 is to identify what professionals do. Professionals may need to construct a list of their tasks and make sure that their lists are proactive and consider what they should be doing now and what they may do in the future. Step 2 involves prioritizing the list of tasks, since professionals might not be able to work on everything at once. Step 3 asks what knowledge and skills are required to perform a particular task, and requires that professionals think about what the results of a task should be, then think about what they need to know to reach those results. Step 4 is to assess level of proficiency against the list of competencies. Professionals must identify the gaps and then go to step 5 to specify learning objectives that are based on that assessment. Step 6 is to develop the CPD plan, including learning objectives, learning strategies, and evaluation plans. Step 7 and step 8 involve actual performance and performance assessment to determine the level of proficiency on the task. Significantly, evaluation and feedback occur at every step to ensure consistency and organizational support (Chalofsky, 1990).

Research Question

"Phenomenology always asks the question of what is the nature or meaning of something" (van Manen, 1997, p. 184). In this study, I will attempt to describe and interpret the nature and meaning of the lived experience of Taiwanese HRD professionals' CPD participation. The central research question is: "What is the lived experience of Taiwanese HRD professionals participating in their continuing professional development?"

Methodology

Hermeneutic phenomenology, the research methodology in this study, is a human science that attempts to achieve awareness of different ways of thinking and acting in search of new possibilities of looking at life. It is the systematic approach used to uncover and describe the structure, the internal meaning structures of lived experiences (van Manen, 1997). Hermeneutic phenomenology attempts to gain a deeper understanding of the nature of our everyday experiences and to describe such meanings to a certain degree of depth and breadth. It matches the research purposes of this study, which is to attempt to explore Taiwanese HRD professionals' experiences of participating in CPD and to explicate the meaning of these phenomena.

Hermeneutic Phenomenological Interview

In hermeneutic phenomenology, an interview has a unique potential for obtaining access to and describing the lived experience. The interview is a conversation about the human life world that is transformed into texts to be interpreted (Kvale, 1996). In this study, I developed research texts through face-to-face conversational interviews. I used open-ended questions; there were no strictly pre-formulated interview questions in order to allow study participants to tell their own stories using their own words. Each participant was interviewed twice in order to obtain a rich understanding of his or her lived experiences; each interview lasted 60 to 90 minutes. All interviews were conducted in Mandarin Chinese or Taiwanese, although some participants used some English words. All interviews were tape recorded, with the participants' consent. All interview data were first transcribed verbatim into Chinese—with the exception of English words—and the Chinese transcripts were used to do thematic analysis. All transcribed texts were translated into English only after the thematic analysis was finished in order to maintain fidelity to the participants' original descriptions without language-based distortion or cosmetic revisions.

In the first interviews, I gathered information about study participants' backgrounds and attempted to extract as much description about their lived experiences of CPD participation as each participant was willing to share. In the second interviews, we clarified misunderstandings that I might have had about the descriptions and the meanings of their experiences from the previous interviews. Participants were asked to review the emerged themes and engage in deeper description in order to determine the deeper meanings or themes inherent in these experiences. Researcher and participants intersubjectively interpreted a draft of themes through hermeneutic conversation or collaborative discussions. Emerged themes were examined, articulated, re-interpreted, omitted, added, or reformulated to achieve the intersubjective agreement that was the means of validation for this study (van Manen, 1997).

Participants

I invited volunteer participants from a pool of contacts among members of the Human Resource Development Association of Republic of China (HRDA, ROC), one of the largest HRD professional associations in Taiwan. Fourteen HRD professionals participated in this study. They represented a mix of individual and corporate backgrounds, with positions that ranged from specialist to director, and job titles that included HRD/HR specialist, HRD/HR senior specialist, training/business consultant, HR section assistant manager, personnel manager, HR manager, training manager, and administrative division director. Study participants had varying lengths of HRD work experience from 3 to 25 years. In order to protect his or her identity, I used an English pseudonym for each participant in this study.

Thematic Analysis

The purpose of phenomenological reflection is to understand the meanings of the human phenomenon. To grasp the structure of meanings in texts, it is useful to describe the experience in terms of themes (van Manen, 1997). Such "theme analysis" refers to "the process of recovering the theme or themes that are embodied and dramatized in the evolving meanings and imagery of the work" (van Manen, 1997, p. 78). van Manen (1997) proposed three approaches to uncover or isolate themes: wholistic, selective, and detailed. The textual analysis in this study combined the wholistic and selective approaches to uncover thematic aspects of a phenomenon in the developed texts; the two approaches were used interchangeably. Using the wholistic approach, I attended to the developed text as a whole and attempted to find out "what sententious phrase may capture the fundamental meaning or main significance of the text as a whole" (van Manen, 1997, p. 93). I listened to the tapes and read the transcripts multiple times as I attempted to find the general meaning in each transcript. Using the selective approach, I read and re-read individual texts several times as I attempted to ascertain "what statement(s) or phase(s) seem particularly essential or revealing about the phenomenon or experience being described" (van Manen, 1997, p. 93). By using the wholistic and selective approaches to text analysis continuously and interchangeably, several significant themes emerged.

Results and Findings

Three major themes—each of which expressed an essential aspect of the Taiwanese HRD professionals' CPD experiences—were identified and explored in this study. Each theme consisted of several sub-themes that deeply explored those lived experiences. Due to the interrelationship of Taiwanese HRD professionals' lived experiences, some themes were strongly connected.

Theme 1: "I Felt Changes"

The single-syllable, six-letter word "change" is the central thought for the first theme in this study. In the modern Taiwanese business world, no matter where HRD professionals turn, change is the only constant. HRD professionals' survival depends on how well they react to on-going changes. Three sub-themes describe how the participants feel about changes in the workplace while they participated in CPD.

"I Felt Changes in the Business Environment". The Taiwanese business environment recently has undergone fundamental changes. The subsequent increase in competition is clearly apparent, as HRD professionals experience organizational changes related to the rapid change in business. Gary is an HR manager at a large-scale electrical company. Like many Taiwanese companies, Gary's company went through a significant transformation, as it became technology-intensive. The company was reengineered several times, which changed Gary's job content, and required that he developed his new professional expertise and knowledge by taking extension courses. He described:

> I have been working at the HR division at this company since I graduated from the university. In the 1980's, with the changes of Taiwan's business environment, our company had to conduct reengineering. As an HR staff, the project of reengineering was a big challenge for me. From 1985 to 1986, our company laid off half as many as our employees. In 1985, we had 3700 employees. After the reengineering, only 1500 remained. It was a huge transformation for our company transferring from labor-intensive to technology-intensive. Although the number of employees decreased, our productivity still had to increase.... The reengineering resulted in a big change in my company. The changes gave me a lot of pressure. I felt my previous learning from the university was not enough. I had a strong desire to go back to school again to collect more information to help our company development. Therefore, I went to take some extension courses at several universities.

"I Felt Changes in the HRD Field". HRD is an emerging and dynamic field that is undergoing transformational change from outside pressures on enterprises as well as from new developments in learning, organization, and career theories and methods (Rothwell & Sredl, 1992). New knowledge and approaches emerge constantly as cutting edge knowledge changed from one wave to another. When they recalled their experiences of CPD, many participants were impressed by the dynamic changes in the HRD field. Ingrid, an HRD senior specialist with a master's degree, mentioned that there are many new things in the HRD field, and to know those new theories and approaches, she continues to participate in CPD. She said:

> In the HRD field, leading knowledge changes often. Several years ago, "competency" was popular. Before that, we only knew "job analysis" and "job evaluation." When "competency" emerged, we started to learn what "competency-based" means.... Because of my job needs, I have to learn leading knowledge in the

> HRD field. Recently I went to learn of "knowledge management," which is the most popular leading knowledge now. What is knowledge management? How can we put it into action? Looking from the business perspective, the rules of the game are changed almost every 5 to 6 years. The rules of the game in HRD are also changed.

"I Felt Changes in My Career". Labor market analysts estimate that each year in America, one-third of all job roles are in transition, one-third of technical skills turn obsolescent, and one-third of workers leave their jobs (Charland, 1997). The labor market in Taiwan is also changing dramatically. The volatile working environment and the need for lifelong learning produce careers for modern Taiwanese that look quite different from those more traditional careers of previous generations. Most workers will go through several major job changes during their lifetimes (Bard, 1987). Similarly, career paths in HRD are as diverse and individualized as the backgrounds of HRD practitioners and as constantly changing as the field. A wide variety of career-related transitions are common occurrences for HRD professionals; as they recalled their CPD, many participants recognized the transition-based experiences in their careers. Mary, an HR section assistant manager, felt that focus of her CPD changed with her career stages; at different career stages, she needed different levels of CPD and information. She stated:

> When I was a corporate training specialist, I took courses related to training. Because I was in charge of training affairs, I took those courses. Now, I am in a different career stage. I am a HR assistant section manager. I needed to enhance my HR competencies. I searched for courses related to HR and I took courses that I need at my present stage.... What information I need to collect and what courses I need to take have much to do with my career stages. Definitely, the focus of my learning was different in different career periods.

Theme 2: "I Felt a Drive for Learning and Development"

HRD professionals are busy; most of them work at least 8 hours a day. Then, as is true for most workers, HRD professionals also spend many hours attending to family and community issues and to other concerns. With such tight daily schedules, why do HRD professionals still enroll in formal learning classes, engage in independent learning activities, and establish their professional networks? One major reason for such involvement is the drives for learning. When they reflected on their CPD experiences, HRD professionals clearly recognized some drives that push them to participate in learning and development activities.

"I Was Preparing for My Future". Too many uncertainties exit in today's constantly changing business environment. A modern professional's career path is no longer linear and stable; rather, it is marked by frequent and often complex changes in both responsibilities and directions (Scanlan, 1985). Many of my participants were interested in participating in CPD to get better jobs; the "I was preparing for my future" drive pervaded those interviews. Neil, a 52 years old consultant with 15 years' work experience, spoke of his CPD experiences as it related to consulting certificates. When he prepared to enter the consulting field, he went to the China Productivity Center (CPC) to take two certificate programs. He recalled his experience:

> I took two series of certificate courses at CPC; one is for consultants and the other for advanced consultants. CPC is regarded as the cradle of consultants in Taiwan. They have good programs and instructors for training consultants.... The program for fostering consultants lasted two years, took more than 400 hours and cost me NT$75,000. The other program for fostering advanced consultants took more than 300 hours and cost me NT$30,000.... At that time, I prepared myself to be a consultant; I needed to know what consultants do and what competencies a consultant should have. Therefore, I was interested in CPC's certificate courses. My main purpose was to get the consultant certificates, which were useful for my consulting career.

"I Desired to Keep Myself Active". Learning drives emerge as a result of either intrinsic or extrinsic factors; extrinsic factors consist of external incentives or pressures, while intrinsic factors are composed of a series of inner pressures or rational decisions which create a desire to learn (Rogers, 1996). An intrinsic drive for learning does not arise from specific objectives; rather, it arises from self-discipline. CPD participation is not done for the sake of specific knowledge; rather, it is done because of the belief that learning maintains or strengthens mental processes (Houle, 1984). Many participants reflected on the internal drive that maintained their desires to keep active or the knowledge that continuing learning activities kept them active. They believe in the old axiom, "If I rest, I will rust." This sub-theme revealed a nature of learning that is reminiscent of Houle's (1961) activity-oriented learners who participate in learning activities primarily for the sake of the activity itself. Dorothy is a 47 years old

director who passed the graduate institute entrance examination after she took several academic credit courses. Dorothy enjoys learning with her young classmates, who keep her active. She described:

> I did feel excited when taking academic credit courses at Sun Yat-Sen University. I felt as if I went back to my college days again [smiles].... Continuing learning keeps me young and active [laughs]. I felt I could keep abreast of the times. The feeling is very nice.... Most of my classmates are much younger than I. I liked to study with young and active people. I don't like to waste my time gossiping. It is nice to keep a young and active heart to study.

"I Desired to Know More". Learning is a natural activity for human beings. It is the continual process of adapting to various changes that we confront, such as changes in our social and cultural contexts, in our own workplace, and in our own personal growth and development (Rogers, 1996). We all have learning desires. Some learning desires are very pressing and arise from or are reinforced by urgent matters; however, some learning desires lie dormant, overlaid by more immediate concerns, and await either a suitable learning opportunity or an increased sense of need to come to life. For many people, these desires for more learning have been buried by other experiences; nevertheless, they still exist and can be awakened in appropriate circumstances (Rogers, 1996). Amy is an HR specialist working in an American-owned company. After working several years in the HRD field, Amy felt she only sees the HRD/HR "trees" rather than the "forest." The drive to know the whole picture of HRD/HR pushes her to take some courses. She expressed:

> In the past, I only focused on a single task on my job. For example, when my boss said we had to do this, then I concentrated on this task. Next time my boss said we have to do that; then I concentrated on that task. However, the tasks are "trees"; I did not see the "forest".... I desired to know the whole picture of HR. I also want to know which parts of HR suit for me for specialization. Therefore, I took some courses from the HRDA, ROC and Sun Yat-Sen University.

"I Felt Self-Actualization". Humanists consider learning from the perspective of the human potential for growth. They see learning as the main process by which to meet the compulsion of inner drives rather than to respond to stimuli (Rogers, 1996). To a certain extent, study participants were active in continued learning and development for self-growth and self-challenge. They attempted to prove their abilities or pursue self-actualization through CPD. The strong drive that pushed Ingrid to participate in CPD was her desire to be in the leading place in the HRD field; she did not care about the job title or salary. Ingrid seemed to be pursuing the highest level of Maslow's (1968) hierarchy of needs, which consists of a need to create, to appreciate, to know, and to understand. She firmly stated:

> I have a thought that I must be in the leading place in the HR or HRD field. This is my goal of CPD. If achieving this goal, I will feel very happy and proud of myself. In fact, I did not care about my job title. It is not really important for me.... Everyone runs his or her own brand in this competitive business environment and I am not an exception. I hope I could be a benchmark in every wave of change. This is what I want.

Theme 3: "I Felt CPD Was Part of My Working Life"

HRD professionals' working lives are as diverse as the organizations and positions they represent. Study participants came from a mixture of individual and corporate backgrounds; naturally, each participant faced different challenges in their working lives. Even similar experiences may mean different things to different people; however, several essential attributes can be mentioned. In this section, two sub-themes explore CPD that is related to HRD professionals' working lives.

"I Learned While Working". There is growing consensus that experience forms the basis of many learning activities (Rogers, 1996). My participants thought of experience as the best approach to CPD in their working lives. As they reflected on their CPD experiences, participants described many important learning experiences they acquired at work. Participants believed if they performed specific activities instead of listening to instructors talk, they would be able to return to work with some practical skills. These HRD professionals did learn from experience and many study participants expressed firm convictions about the effectiveness of learning from experience. John, a senior HR specialist, stated:

> I developed many projects with which I was unfamiliar. However, I have to try. For some projects, even my boss did not have related experience. He cannot give me effective direction. Developing projects were different from daily routines. It was not easy to find out ready-made resources.... For example, I once

> developed an "assessment center project." I could not find out related resources from my company. Therefore, I read books, searched on the Web, and consulted experienced predecessors.... A large proportion of my learning is from working. It was the most effective one. When taking a course, I felt there is a gap between the theory and practice. By working, I could find out the solution and have some outcomes. Working was an important learning process.

"I Perceived Organizational Cultures Influenced My CPD". Whether or not we are aware of it, culture is all around us. When we travel to a different country, we may be struck by unique buildings, customs, or behavioral patterns. In the world of work, companies also have cultures. Organizational culture is not limited to what is written in a formal statement; it is ingrained in the behavior of every person in the organization. As they worked in different companies, participants felt different corporate cultures. Some cultures were learning supportive and others are not; corporate cultures could help participants or choke their CPD. Emma, a senior HR specialist, works in an electronic company with a pro-learning culture. She said:

> Lifelong learning is one aspect of our expected corporate culture which was listed on our business philosophy [shows me their business philosophy on the company profile]. Our company strongly encourages employees to be lifelong learners.... Our company adapted the job rotation system. We hope our employees can develop diverse competencies rather than just focusing on one field.... In addition to our annual training plan, we can apply for taking courses outside. As long as the course is related to one's job and the cost is within the training budget, the application is always approved. Our company did encourage employees to learn and develop themselves.

Unlike the situation in Emma's company, the corporate culture in Dorothy's company did not support continuing learning and development. She felt frustrated by her boss's negative attitude against her CPD participation. Dorothy described:

> In the past, I often requested taking courses or attending seminars to develop myself. One day, my boss told me in an ironic and unhappy tone: "You seem to have taken many courses haven't you?" I dare not take any course this year.... Learning resources are limited in our company. I have to let other employees have opportunities to use them. In the past, I did use little more than others.... Our company lacked a leaning climate. Sometimes I dare not even apply for taking courses outside even if the course is very important.

Conclusion

In the modern Taiwanese workplace, it is essential and necessary that HRD professionals participate in CPD. This study explores, describes, and interprets the experiences of Taiwanese HRD professionals participating in CPD. The findings of this study provide a deeper insight into the structure of meanings of this unique experience. Listening to the voices of my participants helps us to have a sense of how Taiwanese HRD professionals perceive their CPD. Learning from these selected participants' experiences helps us to rethink the meaning of CPD participation in their working lives of modern Taiwanese HRD professionals. Hopefully, this research will prompt further research to enrich understanding about Taiwanese HRD professionals.

Study Contributions to HRD

This hermeneutic phenomenological study contributed to new knowledge in HRD by providing a deep description and interpretation of HRD professionals' CPD experiences. This study provides a richer and deeper understanding of this lived experience as well as offers an intersubjective interpretation of this experience. This study adds the possibility of plausible insights that bring us in more direct contact with HRD professionals' CPD activities. It is important to understand these phenomena. Increased understanding of their lived experiences will directly contribute to those Taiwanese HRD professionals who rely on CPD to update their competencies and expertise. The study also provides valuable insights for adult educators, HRD/HR managers, and other individuals who are interested in fostering and developing HRD professionals.

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What is it Like to be a Taiwanese HR Practitioner Performing HRD Tasks?

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This interpretive study describes the lived experiences of Taiwanese Human Resource (HR) practitioners who are performing Human Resource Development (HRD) tasks. Using hermeneutic phenomenology as the methodology, seven participants were interviewed about their daily work experiences as HR practitioners. Three major themes emerged about HRD in the Taiwanese work culture: (a) HRD is one aspect of HRM, (b) HRD is equated with training in Taiwan, and (c) HRD success relies on the visions and support of top management.

Keywords: Global HRD, Taiwan HRD, HRD Tasks

As will be seen from the brief literature review presented below, Human Resource Development (HRD) has neither a standard definition nor roles that are universally accepted. In fact, as the contexts in which HRD is done change, the understanding of HRD in those contexts change. One significant context is the country in which HRD is performed. In this research, the meaning of HRD for seven practitioners in Taiwan is explored.

Human Resource Development (HRD) is a relatively new area of professional practice and academic study, even in the United States (Jacobs, 1990). DeSimone and Harris (1998) indicated that "human resource development is a relatively new term, but not a new concept" (p. 3). In Taiwan, it is even more recent.

In order to contribute to improved organizational effectiveness and success, HRD in the United States is a discipline charged with the development of people, processes, and organizations (Wimbiscus, 1995). According to Ruona (2000), scholars in the United States have different points of view about HRD as a profession. Even core beliefs are different due to different value systems. With such differences existing within a country, it should not be surprising to find that different definitions of the HRD profession will exist in other countries (Gilley & Eggland, 1989; McLean, 1999).

In the United States, Nadler (1983) defined HRD as "organized learning experiences, in a given period of time, to bring about the possibility of performance change or general growth for the individual within an organization" (p. 9). Swanson (2000) indicated that "HRD is a process of developing and unleashing human expertise through organization development (OD) and personnel training and development (T&D) for the purpose of improving performance" (p. 8-2). Watkins and Marsick (1997) suggested that HRD practitioners should broaden the concept of HRD. From an adult education perspective, Watkins (1989) suggested that

> Human resource development is the field of study and practice responsible for the fostering of a long term, work-related learning capacity at the individual, group, and organizational levels. As such, it includes--but is not limited to--training, career development, and organizational development. (p. 427)

McLagan (1989) suggested that the fundamental HRD roles are administrator, evaluator, HRD manager, HRD materials developer, individual career development advisor, instructor or facilitator, marketer, needs analyst, organizational change agent, program designer, and researcher. Marquardt and Engel (1993) argued that HRD should focus on needs that relate to the global workplace. They argued that HRD practitioners should have interpersonal and cultural competencies, including "developing a learning climate, designing training programs, transmitting information and experience, assessing results, providing career counseling, creating organizational change, and adapting learning materials…" (p. 63).

In Taiwan, in contrast, there is limited information about how HRD is defined and its roles. According to Kuo and McLean (1999), "Taiwan's economic success supports the idea that developing human resources through education has an important bearing on economic growth" (p. 444). Developing human resources starts with managing human resources. Managing human resources as a strategy has a significant impact on Taiwan's economic development. Human Resource Management (HRM) has been taught in business administration departments for a

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long time. Most HRM textbooks are focused on the administrative matters of HRM activities with little emphasis on what would be included in the United States as HRD. Although activities in HRD and HRM do have some overlap, in Taiwanese business settings, Human Resource Management (HRM) is considered to be far more significant than HRD. Some scholars (Chang, 1995; Chang, 1999; Jean, 1995) from different perspectives defined HRD functions as a part of HRM. When they discussed human resource development, they focused on career development and task-related development for employees (Chang, 1999). In the 1990s, many Taiwanese scholars studied aboard and returned to Taiwan to convey, broaden, and differentiate human resource management and development concepts (Chen, 1995; Jean, 1995; Lin, 1991; Lin, 1996). Within the country's higher education community, the relatively new concept of HRD is becoming an increasingly important subject. This is especially true due to the number of studies related to Taiwan and HRD that accumulated during the 1990s (Kuo & McLean, 1999). In spite of this growth in usage, however, the components have not been defined in the literature, and it is not clear if the users of the term in practice clearly differentiate it from HRM. That is, in fact, one of the motives for this study. From this lack of careful distinction among fields in Taiwan, some confusion still exists, and HRM, HRD, personnel, training, and even industrial relations (IR) are often used as synonyms in Taiwan. Within this confusing context of terms, the question that emerged for research was, What is it like to be a Taiwanese HR practitioner performing HRD tasks?

Research Questions

Determining the meaning of HRD in Taiwan for a small group of HR practitioners was one of the focuses of this study. Since HR remains the primary term in Taiwan, the researchers decided to focus only on HR practitioners who might perform HRD activities, however they define them. At present, there are no studies identified that address the experiences of Taiwanese HR practitioners. The major research question for this study was: "What is it like to be a Taiwanese HR practitioner performing HRD tasks?" The following specific questions were posed in the interviews as beginning points in the guided conversations with the participants.

1. What roles do the identified HR practitioners fulfill in Taiwan?
2. What functions and definitions of HRD do these Taiwanese HR practitioners use in a business setting?
3. What is the essential meaning of HRD for these Taiwanese HR practitioners?
4. How do these HR practitioners feel about their work?

Each of these questions was selected as they represented a major component of previous research that has emerged from research in other countries, primarily the United States. While it would be preferable to have these questions emerge from the research in Taiwan, this study was exploratory exactly because the desired research in Taiwan has not been identified, if it exists. Further, while these questions were asked to begin the conversations, as van Manen (1998) specified, the researcher's role in phenomenology is to have a conversation with the interviewees. Thus, questions were used to probe for the interviewees' experiences as HR practitioners performing HRD activities.

Methodology

According to Marsick (1990), qualitative research is useful when research attempts to (a) build new theory rather than imposing existing frameworks on existing data, and (b) explore uncharted territory. In order to explore the complexity of the relatively unexplored concept of Human Resource Development in the Taiwanese workplace, a qualitative study seemed appropriate as a means of conveying the participants' experiences.

The purpose of this study was to establish shared understanding among seven Taiwanese HR practitioners about their lived experiences in performing what they identify as HRD tasks. Hansen (1998) advised telling the story from the viewpoint of informants and using their vocabulary and definitions in the form of raw quotes as the basis of emergent theory. Given the inadequacy of existing frameworks in Taiwan, this study attempts to explore and understand only these Taiwanese HR practitioners' experiences first. In addition, it also adds to the growing body of knowledge in international HRD.

Seven Taiwanese HRD practitioners participated in semi-structured interviews. The study used hermeneutic phenomenology as the research methodology through which to understand the inherent phenomena (phenomenology)--the ambiguous role and concept of HRD in Taiwan--and to interpret the lived experiences (hermeneutics) of Taiwanese HR practitioners who claimed to perform HRD activities (Hultgren, 1989). The interviews were transcribed verbatim, and the text was analyzed by repeated readings, identifying themes that emerged with the use of a highlighter and codes placed in the margin of the transcripts. The text analysis was based on the principle of hermeneutic cycle (van Manen, 1998). First, the researchers read the verbatim transcripts many times until the themes emerged. Second, the findings were shared with the participants to obtain intersubjectivity and to determine whether mutual understanding of their experiences had been identified. Third, the themes were modified if the participants did not agree that the themes identified accurately reflected their shared experiences.

Study Participants

The interview subjects were seven Taiwanese HR practitioners who ranged in age from 27 to 50+ years. Although all of the practitioners claimed to be involved in HRD activities, they all considered themselves to be HR practitioners rather than HRD practitioners. By title, the seven participants were a training supervisor, an HR manager, two independent HR consultants (who used to be internal HR consultants), an independent OD consultant, an HR supervisor (Human Resource Division), and an HRD professor (Industrial Relations Department). The study participants were purposefully selected by using the snowball technique (Patton, 1990). A more detailed description of the participants is included in Table 1, below.

Table 1. The Profiles of Seven Taiwanese HR Practitioners

Category, Name	Current Job Title	Age	Years of HR Experiences	Past Work Experiences
Miss L	HR Supervisor	32	7	Training Specialist, HR Specialist
Miss A	Training Specialist	30	3	Training Specialist
Mister Y	HR Manager	40	7	IT consultant
Mister N	Independent HR Consultant (HR Executive to CEO)	40+	10	Engineer, HR Manager,
Mister W	Independent OD Consultant	60	15	Project Manager, Consultant
Mister E	Internal HR consultant	55	20	Engineer, Specialist
Professor J	Associate Professor of Labor Relations Department	40+	5	

Findings

The text analysis produced three major themes: (a) HRD is one aspect of HRM, (b) HRD is equated with training in Taiwan, and (c) HRD success relies on the vision and support of top management.

HRD Is One Aspect of HRM

HRD is a relatively new term in Taiwan. As HR is currently a trend in Taiwan, most Taiwanese companies, according to the participants, have changed the name, Personnel Department, to Human Resource Department. Basically, most companies, however, have not extended the functions of human resources; their activities still focus on functions such as compensation, benefits, and labor law issues. One participant stated that HRD includes training, CD, and OD activities. He pointed out that HRD as a discipline is too weak to develop in Taiwan because most HRD activities, compared with HRM activities, are more difficult to measure and to get business results immediately. Therefore, most of the time, HRD does not get the attention of management. As one participant said:

> In Taiwanese organizations, the so-called HRD practitioners still deal with low-end matters. Instructional design or teacher planning is just a small portion of their daily work. We spend a lot of time on administrative work. HRD in Taiwan is just part of the HRM function. I don't think they pay much attention to HRD here. Most of the time, the so-called HRD practitioners deal with compensation, how to count fringe benefits, and labor law issues.
>
> Another participant said:
>
> HRD is supposed to have the big picture of how to develop human capability; HRD is supposed to help people develop their competencies; HRD is supposed to include activities related to learning, teaching, and evaluating. Unfortunately, all we can do now is HRM activities. HRD tasks are a small portion of daily

> work; we do not have enough people and time to develop and do all the HRD tasks. Hey, I am a training specialist; what I do is collect the training needs of employees and send them out for training. In addition, can you believe that in our department (HR), I need to take care of benefits stuff?

Another participant said:

> In the past, Taiwanese enterprise business was not like we have now. Foreign-owned companies try to find local people to deal with personnel matters. Translators in the military are hired to transform HR policy and know-how from the foreign-owned company to the local subsidiary company. Little by little, personnel administration as part of HR management was developed in Taiwan. As I remember, HRD was just as a small portion of the HR function in the company at that time. HRD focuses on the future; we need to think about "now." There were a lot of personnel administration matters to deal with, such as compensation, labor laws, legislation, and labor relations related issues. It is daily, routine work…In the 1970s and 1980s, all the business administration graduates, if they were interested in personnel matters, focused on entire administration techniques of HR. It was not necessary for them to know what HRD really is. No wander, HRD since then has been just one aspect of HRM.
>
> From my point of view, HRD should be management development (MD); it should include a good succession plan for employees and the business. My past company does have such a plan to match employee interests and company needs. I think that is part of HRD. But most companies focus on low-end personnel matters; HRD may not be a first concern of their daily work.

In Taiwan, the participants observed that most of the time organizations do not appreciate HRD as a separate profession and do not distinguish HRD activities from HRM. Thus, the best strategy for HRD practitioners at this moment is to rely on HRM-related professional associations, while participating in HRD activities with an HRD philosophy. Unlike many studies in the U. S. (Cummings & Worley, 1993; McLagan, 1989; McLagan, 1996; Willis, 1996) that highlighted one of the traditional HRD roles as change agent, Taiwan's HRD practitioners barely recognized their role as change agents within organizations. For example, the OD functions of HRD are not significant at this moment in Taiwan's HRD activities, all according to the participants.

HRD is Equated with Training in Taiwan

According to DeSimone and Harris (1998), instructional design, teacher planning, and performance technology are each areas of HRD. HRD practitioners in Taiwan are referred to as training specialists, since a large part of their responsibility is to deliver training. Does HRD in Taiwan include performance technology or teaching planning or evaluation? The answer is both yes and no. According to the participants, Taiwanese organizations do not see a broad scope of activities associated with HRD or even training and development; they just see training. The purpose of training is to solve current problems. Development may not be as urgent as other business functions. Sometimes, Taiwanese organization may do simple evaluation along with the training, but it is just because "everybody does," not necessarily for developmental purposes.

Watkins and Marsick (1992) explained that the learning perspective involves "facilitating or monitoring all types of learning in the workplace, including formal, informal and incidental learning, implying at least that human resource developers should be responsible for enhancing the organization's learning system" (p. 118). In Taiwan, if companies are large enough, they may have a training center--separate from the HR department--to deal with all aspects of training, including some elements of teacher planning and performance technology. If companies are small, they generally buy ready-made materials and ask their HR Specialist to deliver the training. Sometimes, they do not even do an evaluation. They just deliver the training that they think is useful. This finding is similar to Walton's (1999) conclusion that, in some literature, HRD and training and development are interchangeable notions.

One participant, who is an HR supervisor, noted:

> The thing that I deal with most is to call the labor bureau and ask what benefits our employees can get. There's a lot of law that we need to follow, a lot of paper that we need to fill out. I've been thinking about planning some training activities for our employees, but it seems that it is not our company's first priority. If we really need a training program, my boss just sends people out or buys a training program and asks us to deliver it. I am more interested in planning and developing a training material, which fits the employees, but first of all, I don't have time; second, my boss doesn't see it as necessary.
>
> I don't think so-called OD can survive in Taiwanese organizations. Training may be more visible. I believe my boss thinks so-called HRD is training, nothing else. However, organizational change is not what we need to consider; that kind of issue belongs to top management.

Training is considered by the participants to be an HRD activity. Although HRD is not limited to T&D, one participant kept referring to HRD as training when asked about his daily HRD tasks. He said:

> Training is an important part of HR. We really care about the training. Training and development are the most important parts of our business strategy… In addition to me, I have two colleagues, and they help me to design training classes.

HRD Success Relies on the Vision and Support of Top Management

As with many organizational activities in Taiwan, without top management commitment, many HR activities barely succeed. Thus, on the one hand, if the leader of the company has a clear vision and supports training and other HRD-related activities, HR practitioners are able to do more meaningful work. On the other hand, some leaders who lack a vision of HRD as a profession seek only their company's immediate financial results instead of long-term business results. With this management philosophy in mind, HRD practitioners in Taiwan do have some strategies to re-educate top managers. One participant explained:

> I really appreciate my boss, who supports my training program. Even when he asks me about the results [of training on performance], and I cannot give him an answer, he still lets me do it. And it pushes me to think about performance as a result of the training. As an HR practitioner, I think the boss' appreciation and support are very important. If they (boss) have vision, I will enjoy working in the HR department, and I can do lots of HRD activities. Otherwise, I don't think that I can happily work as a training specialist.

Another participant said:

> HRD practitioners in Taiwan had better take the HRM position and work it as their strategic plan. Because we don't have enough HRD people, we need to wait and cultivate our own HRD people who share the same vision and shift the paradigm. I think it is not important to be called HRD practitioners or HR practitioners as long as we practice HRD tasks.

Still another participant said:

> The mind of top management is what really matters. I seize every opportunity to educate my boss on how important HRD is and try to give him the whole picture of what HRD is. I hope someday my boss can listen to me and realize that the HRD function is different than HRM activities. Then I can deal with real HRD activities, such as developing a career development plan for employees in which I have more things to do…, or, officially, I can perform HRD tasks without any confrontation or conflict with my boss.

Conclusions and Recommendations

Given the nature of the research methodology, it can be concluded from this study that, for the seven Taiwanese HR practitioners involved in this study, (a) HRD is one aspect of HRM, (b) HRD is equated with training, and (c) HRD success relies on the vision and support of top management. It also appears from the participants' observations that there will be more opportunities for development in HRD-related areas in the future. These Taiwanese HR practitioners, at least, do not perform many HRD activities, such as training planning and development, career development, organization development, and performance technology. And most of time, when these HRD tasks are performed, they are not the focus of their job due to external constraints. All they practice are parts of training activities, parts of performance technology, and parts of organizational interventions, depending on the business tasks in which they are involved.

It is interesting to observe that the three themes are not completely parallel to the research questions posed at the beginning of this paper. One of the observations from this study, also experienced in other interview studies conducted in Taiwan, is that the interviewees were often not direct in responding to questions. Thus, while probing questions were asked during the conversations relative to the four research questions, the interviewees often responded in indirect ways to the questions. This raises interesting questions about doing qualitative research in this context. For example, one participant mentioned that it does not matter what people call them, at this moment, the most important thing for HR is to educate business and society to appreciate HRD as a discipline.

In the future, it will be very helpful to extend the findings of this study. It would be extremely helpful to replicate this study by interviewing those who identify themselves as HRD practitioners, or those who identify themselves in some aspect of what some see as HRD, i.e., organization development practitioners, performance technologists, career counselors, and so on. As this database grows, it will also be helpful to begin to move towards quantitative measures of the broad field of Human Resources and its sub-components, so that the field can be mapped more fully for Taiwan.

Contributions of Research to HRD

This study contributes to the body of knowledge in HRD by providing a deeper understanding of a select group of Taiwanese HR practitioners and their HRD practices. In addition, through a deeper understanding of Taiwanese HR practitioners, this study also provides additional information about theory and practice in Taiwan, adding to the growing database of countries for which such information is becoming available. Further, this study serves as a foundation on which to build theory in Taiwan, which is of interest to Taiwanese HRD practitioners, researchers, and educators, as well as international HRD researchers, to help them also reflect on HRD in Taiwan.

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A Study of Human Resource Development in Indigenous Firms and Multi-national Corporations in East and Southeast Asia

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Short-term focused training and broader human resource development (HRD) practices of non-managerial host country nationals (HCNs) are examined in a study of multi-national corporations (MNCs) and locally owned corporations (LOCs) operating in four Southeast Asian countries. Significant differences were found in the attitude of human resource managers towards the provision of short-term job-related training and longer term HRD for non-managerial HNCs between locally owned firms and MNCs from Europe, Japan, and the United States.

Keywords: International HRD, Multinational Corporations, Host-country Nationals

The growing significance of international corporations and the search for optimal management practices within these organizations has resulted in major impacts to the field of human resource development (HRD). As noted by Schuler, Dowling, and De Cieri, (1993) the globalization of business is making it more important than ever to understand how multinational organizations can operate more effectively and efficiently. The HRD function is emerging as a critical competitive factor in the success of international organizations that warrants further investigation (Baumgarten, 1995).

Problem Statement

The vast majority of international HRD literature focuses on the policies, programs, and practices associated with preparing employees for current and future international assignments (Landis & Bhagat, 1996). However, noticeably lacking from the international HRD literature is an examination of the training and development of non-managerial host-country nationals (HCNs) employed in multi national corporations (MNCs) compared to those Host country nationals employed by indigenous firms, also referred to as locally owned corporations (LOCs).

Literature Review

The role of international HRD has traditionally been limited to selecting, training, and supporting expatriates rather than focusing on serving the global employee population of the entire organization (Pucik, 1997). A shift is occurring within MNCs as the vital role of host country nationals in the operation of multinationals is increasingly recognized (Baumgarten, 1995). The increased reliance of host country nationals coincides with the continued high costs of expatriate employees as compared to the employment of citizens from the host country (Townsend, Scott, & Markham, 1990). Other advantages offered by host country nationals include the ability to speak the native language, and their familiarity of local business norms and practices (Barratt, 1995). Not surprisingly, many MNCs

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are increasingly selecting managers and other top executives from the host county (Hayden, 1990).

For many years a stereotypical view persisted that characterized host country employees as being unsophisticated, untrained, and technically incapable as compared to expatriates (Mendenhall, Punnett & Ricks, 1995). As a result, expatriate employees were selected for a variety of overseas job assignments with very little thought given to the HRD needs of entry level HCN employees with which the expatriate would work. Expatriate managers have often failed to emphasize HRD for the non-managerial HCN workforce reflective of their focus to the short duration (usually less than three years) of their overseas assignment.

Increasing concern at the number of expatriate failures, as measured by early return, together with the rising costs of salaries, benefits, and travel expenses has seen MNCs attempting to circumvent the expatriate problem by recruiting and training host country nationals (Bhagat & Prien, 1996). Wes (1998) suggests that managers adopt a process of "localization" by using HRD practices to develop host country nationals to replace expatriate staff. Vance, Wholihan, and Paderon (1993), suggest that well trained host country nationals can assist expatriates in succeeding in their assignment and avoid certain costly mistakes that might seriously undermine the success of the foreign assignment. It has also been said that multi national corporations have an ethical responsibility in providing training and development for the host country workforce (Vance & Paderon, 1993). Providing HRD for the host country workforce reflects a long-term developmental approach to the global workforce and reduces existing stereotypes that multi nationals exploit cheap labor. It also supports the notion that a long-term investment perspective is required for building truly global organizations.

Research Hypotheses

Within the last two decades countries in the Southeast Asia have experienced much global business activity capitalizing on the competitive advantage represented in their human resources. Studies by the World Bank highlight that pre-existing education priorities for the nation may be the single most important element in any national or firm level HRD strategy (Asia Development Bank, 1991). Because both MNC and locally owned companies utilize the host country workforce, it is thought that the percentage of HCN workforce receiving training would be the same for LOC and MNCs.

Hypothesis 1: The percent of the HCN workforce receiving training in the past year will not be significantly different for host country nationals in U.S., Japanese, and European MNCs compared to locally owned firms in Singapore, South Korea, Taiwan, and Thailand.

U.S. companies operating internationally are said to invest less in HRD as they transfer their short-term financial performance approach to management often resulting in HRD for host country nationals taking a back seat (Russ-Eft, Presskill, & Sleezer, 1998). Meanwhile, Japanese firms are often cited as investing heavily in HRD to reflect their values towards training and development (Lindberg, 1991). Locally owned corporations are general thought to adopt a long-term developmental approach to their human resources whereas MNCs have tended to focus on the competitive advantage represented by an abundant and cheap labor force.

Hypothesis 2: Locally owned firms are more likely than MNCs to engage in HRD activities with a long-term focus on HCN development,

Hypothesis 3: MNCs will be more likely than locally owned firms to engage in short-term training activities.

In additional to the transferability or local adaptation of HRD policies, various organizational structural and performance variables may also influence the amount and type of HRD provided for host country nationals. The existence of a centralized human resource department has been shown to relate positively to formal HRM standards. Extending this argument, it could be suggested that HR professionals within a centralized HRM department would be more likely to support the provision of both short-term training and long-term HRD for host country nationals as it increases the role and visibility of HRM within the organization and because it reflects practices consistent with modern effective HRM.

Hypothesis 4: Firms with a centralized HRM department are more likely to engage both in short-term training and HRD activities with a long-term focus on HCN development.

The size of the firm and number of years of operation in the host country are also expected to influence HRD for host country nationals. Existing research confirms that larger firms provide more training (Osterman, 1995). It was also thought that firms in operation for a number of years may have determined the amount and type of training and development needed to ensure that local employees posses the required knowledge, skills, and abilities.

Hypothesis 5: Larger firms are more likely to engage in HRD activities with a long-term focus on HCN development and also more likely to engage in short-term training.

Hypothesis 6: The length of operation in a host country will increase the likelihood of a firm engaging in both short-term training and long-term HRD activities.

Firm performance, turnover, and the number of employees recruited at entry level are also expected to influence HRD. Higher performing firms are likely to have the resources necessary to undertake training and HRD activities. The voluntary turnover rate was included as high turnover among host country nationals may result in reluctance for training and development investments. Previous research has identified increased training and development in firms with low turnover (Lynch & Black, 1998). The number of employees recruited at entry level may increase the amount of training required to ensure that all employees have the required job skills despite potential shortcomings resulting from their formal education.

Hypothesis 7: Firms with greater levels of organizational performance are more likely to engage in HRD activities with a long-term focus on HCN development and also more likely to engage in short-term training.

Hypothesis 8: Firms with high voluntary turnover rates are less likely to engage in HRD activities with a long-term focus on HCN development and also less likely to engage in short-term training.

Hypothesis 9: Firms that recruit a high proportion of host country nationals at the entry level are more likely to engage in HRD activities with a long-term focus on HCN development and also more likely to engage in short-term training.

Method

Data and Procedures. A survey questionnaire was developed as part of a larger comparative study of HRM systems in South Korea, Taiwan, Thailand, and Singapore. The questions focused only on non-managerial employees in narrowly defined categories of similar jobs. The questionnaire was translated into Korean, Chinese, and Thai, with back translation to assure validity of the items; the survey instrument used in Singapore was administered in English. The instruments were mailed to individuals with principal responsibility for HRM in a random sample of both MNCs and LOCs who were identified in business directories of major companies in each country. A total of 402 organizations were included in the analysis with return rates for each country being in the 25% to 30% range, which is typical for international HRD studies (Tregaskis, 1998).

Variables. All of the variables included in this study were derived from items on the questionnaire. The dependent variables for this study included a scale of training practices for host country nationals and a scale of more long-term HRD practices for host country nationals. Items in the training scale reflected a short-term, job related approach to developing human capital within the firm. Responses were scored along a six-point Likert-type scale with the end points reading 1 = very inaccurate, 6 = very accurate. These items were based on those used by Snell and Dean (1992). The scale consisted of four items and the reliability of this scale was within acceptable limits (α=.67). The four-item HRD scale included items to reflect a long-term and broader perspective to improving employee skills. The reliability coefficient for the HRD scale was on the low side, but certainly acceptable for an exploratory study (α=.62). Two other dependent variables in the study (percent of employees receiving training and hours spent in training) were single item questions asking for specific numbers from the respondents.

As for the independent variables, host country and country of origin were measured by dummy variables. The reference category was U.S. multi-national firms with dummy variables indicating if the firm was a Thai, Taiwanese, South Korean, or Singaporean indigenous firm or the affiliate of a Japanese, or European multi national. These variables were used to test Hypotheses 1-3. A dummy variable indicated if the firm had a centralized HR department was used to test Hypothesis 4. Respondents were also asked the number of individuals currently employed by the firm (Hypothesis 5), which was converted to its logarithmic value, and the number of years the firm had operating in the host country (Hypothesis 6), also converted to its logarithm. An organizational effectiveness scale, based on the work of Khandwalla (1977), was used to test Hypothesis 7. Only the items relating to firm financial performance were used from this scale; the scales reliability was high (α=.81). Finally, two questions asked the voluntary turnover rate (Hypothesis 8) and percentage of employees recruited at the entry level (Hypothesis 9). Means and standard deviations appear in Table 1.

Table 1. Means and Standard Deviations (n = 402)

	Mean	Standard Deviation
Percent non-managers trained	48.03	34.96
Hours trained in past year (Log)	2.75	1.26
Training scale	3.62	.96
HRD scale	4.19	.77
Indigenous Taiwan Firm	.28	.45
Indigenous Thai Firm	.098	.30
Indigenous Taiwanese Firm	.01	.28
Indigenous Korean Firm	.28	.45
US Firm	.15	.36
Japanese Firm	.15	.36
European Firm	.13	.34
Organizational Effectiveness	4.39	.81
Percent Recruited at Entry Level	44.25	33.15
Years in Host Country	21.91	17.69
Free-standing HR Department	.73	.44
Voluntary Turnover Rate	13.20	19.29
Number of Employees (Log)	5.43	1.45

Results

As the regression results show in Table 2 each column corresponds to a separate dependent variable and standardized regression coefficients and t-statistics are reported for each independent variable. All four equations are statistically significant.

Hypothesis 1 relates to differences in the percent of non-managerial host country nationals trained by multinationals and indigenous firms. Dummy variables representing the firm's country of origin are used to test this hypothesis. Thus "Japan" and "Europe" indicate that the company is the subsidiary of a Japanese or European-based MNC, regardless of host country. "Korea," "Singapore," "Thailand," and "Taiwan" indicate the firm is locally owned and situated in the indicated country. The excluded (reference) category represents subsidiaries of U.S.-based MNCs. The addition of the country of origin dummy variables to the regression equation in which percent of host country nationals trained is the dependent variable significantly improves the fit of the model ($F_{6,402} = 7.43$, $p < .001$), which would tend to result in a rejection of Hypothesis 1. That is, there are systematic differences by country of origin with regard to the proportion of employees trained. In contrast, however, the country of origin dummy variables exert no statistically significant effect on the average time spent on training ($F_{6,381} = .695$, ns), so given that a firm provides training, the typical duration of the training experience does not vary by the cultural context of the country of origin nor does it differ between MNC subsidiaries and indigenous firms.

Table 2. Regression Results (Standardized Coefficients and t-Statistics N = 402)

	Percent Non-Managers Trained	Hours Trained (Past year)	HRD Scale	Training Scale
Japanese Firm	-.169 (-3.10)***	-.065 (-.1.113)		
European Firm	-.045 (-.994)	-.049 (-.838)		
Indigenous Thai Firm	-.301 (-5.46)***	-.049 (-.83)	-.189 (-3.558)***	.020 (-.400)
Indigenous Taiwanese Firm	-.017 (-.338)	-.048 (-.929)	-.103 (-.2.012)***	-.027 (-.566)
Indigenous Singaporean Firm	-.140 (-2.65)**	-.095 (1.717)*	.029 .564	-.015 (.305)
Indigenous Korea Firm	.-.007 (.279)	-.072 (-1.121)	-.062 (-1.010)	-.009 (-.165)
Organizational Effectiveness	.115 (1.97)**	.178 (3.59)***	.195 (3.867)***	.304 (6.456)***
Percent Recruited at Entry Level	-.13 (-.2.70)***	.029 (.563)	-.049 (-.94)	-.017 (-.358)
Years in Host Country	-.067 (-1.34)	-.086 (-1.66)	.010 (.18)	-.026 (.519)
Free-standing HR Department	.107 (2.17)**	.107 (2.071)***	.058 (1.102)***	.140 (2.878)***
Voluntary Turnover Rate	-.028 (-.612)	.060 (1.243)**	-.040 (-.802)***	-.094 (-2.012)**)
Log of Number of Employees	.252 (-4.12)***	-.286 (-.4.47)***	-.014 (-.210)	.199 (3.737)***
Adjusted R^2	.202	.127	. 076	.19
-F	9.425***	5.729***	8.059***	3.696***

***p < .01 **p < .05 *p < .10

Hypotheses 2 and 3 are assessed by the country of origin dummy variables in the HRD and training scale equations, as these two scales represent the nature and qualities of the HRD and training efforts, rather than intensity or breadth. To test these hypotheses, we include only the dummy variables that indicate locally owned companies, since we investigate the issue as to whether the indigenous firms differ from MNC subsidiaries and, if so, in which countries. The country dummy variables for the training scale are not, as a set, statistically significant ($F_{4,408}$ = 1.015, ns), though they are in the case of the HRD scale ($F_{4,408} = 4.467$, $p < .01$). The former results would lead to a rejection of Hypothesis 2, whereas the latter results would be supportive of Hypothesis 3. Yet, the impact in the latter case is limited to indigenous Thai and Taiwanese firms, which are significantly more likely to pursue long-term development activities than MNC subsidiaries; indigenous firms in the other two countries in the study are not significantly different from MNC subsidiaries on this dimension. Thus, the effect is fairly weak.

Other variables exerting a significant effect on percent host country nationals trained include organizational performance (positive), percent recruited at the entry level (positive), and organizational size (positive). These effects are consistent with Hypotheses 7, 9, and 5 respectively. In the case of average training time, organizational performance exerts a positive significant effect consistent with Hypothesis 7. The organizational size and presence of a centralized HR department exert significant positive effect as well and these are consistent with Hypotheses 4 and 5 respectively. Other variables are not significant at the .05 probability level.

Organizational variables have effects on the training scale. Organizational performance, the presence of a centralized HR department, and organizational size had positive and statistically significant effects on the training scale, thus supporting Hypotheses 7, 4, and 5 respectively. Voluntary turnover is negatively related to the training scale, which is consistent with Hypothesis 8. Few organizational variables effects on the HRD scale. The only strongly significant variable is organizational performance, which is positive and thus consistent with Hypothesis 7. The presence of a centralized HR department is also positively related to the HRD scale (as is consistent with Hypothesis 4), though this is only significant at the .10 level.

Conclusions

This paper has explored the role of national origin of firms in attempting to explain the amount of training and development offered to non-management employees in large multi national and locally owned corporations in four selected Southeast Asian countries. The results suggested a variety of other variables might also affect the amount of HRD opportunities afforded to HNCs. Although various control variables in our analysis performed as expected, our principal hypotheses, relating to differences in training and development as a function of country of origin, were not strongly supported. This, in fact, indicates that a convergence effect may be at work here; that is, companies make decisions based on economic and organizational structural variables rather than national cultural and other influences. This bears further inquiry and model refinement.

This study contributes new knowledge to international HRD in that there is currently a shortage of empirical work existing to explain the differences in the level and types of HRD activities for host country nationals in MNCs. The findings of this research challenge many commonly held beliefs about international HRD. Specifically, despite all firms depending on existing local education systems to provide employees it appears as though the country of origin does influence the percent of the HCN workforce receiving training. The oft cited over investment on long-term HRD by Japanese firms and under investment by U.S. multi-nationals was not supported in this study. Results showed that U.S. multi national corporations were training a larger percent of their HCN workforce as compared to Japanese multi nationals. The results of this study support the idea that indigenous firms recognize the value of training and developing their human resources. The results also highlight the influences on short-term training and longer-term HRD activities from a range of organizational structure, strategy, and policy variables which would seem to support existing research that finds the variable most related to participation in HRD is organizational commitment to training and policies and regulations that facilitate attendance at training events (Tharenou, 1997). However, much additional research is required to understand possible barriers to the implementation of widespread HRD initiatives for host country nationals employed in multi national organizations. Ideally such future studies would be cross-cultural, employ diverse research methods, and use longitudinal designs to address the influence of variables other than national and organizational culture as has been discussed above.

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An Exploration of Perceived Differences in Teaching Roles between On-Site and On-line Instruction

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This investigation explored perceived changes in nine traditional teaching roles as experienced by 144 on-line instructors at selected institutions across the United States. Respondents were asked to compare the roles in terms of on-site versus their on-line teaching experiences. Significant differences were found with respect to role importance, role difficulty, role changeability, role satisfaction, and time required to perform the roles. The findings hold implications for those who recruit, hire, train, and supervise on-line instructors.

Keywords: Distance Learning, On-line Instruction, On-site Instruction

The rapid growth of the World-Wide-Web, is changing how people learn (Green, 1996). For example, in 1999 state colleges in Colorado reported enrollment growth in on-line courses to be up 117% over the previous year (Scanlon, 1999). Furthermore, it is estimated that in the near future 25% of all community college students will acquire part of their education via the Internet and that community colleges will compete nationally/internationally for students via distance learning technologies (Morrison, 1995). In recent months such organizations as the Metropolitan Life Insurance Co., (Swanson & Khirallah, 2000) and the United States Veterans Administration (Khirallah, 2000) announced plans to dramatically increase their on-line training offerings.

The rapid expansion of on-line courses has generated numerous studies on web-based-instruction. To date many of these studies have focused on learning outputs (Russell, 1997; Johnson, Aragon, Palma-Rivas, Shaik, & Bilsbury, 1999). The advent of web-based-instruction has also renewed lively discussion on educational theory and practice. According to Wilson (2000), "A major debate has surfaced about the basis of teaching and learning in an on-line environment. Of the current theories that support on-line teaching and learning, behaviorism has historically had the greatest impact." Individuals in both theoretical camps (i.e., behaviorist and constructivist) hold opposing notions about the appropriate roles of instructors (e.g., sage on the stage versus the guide on the side). Both behaviorist and constructivist want to bring their preferred teaching roles to their on-line instruction.

Rutherford (1977) contends many instructors have concerns about on-line teaching and are reluctant to embrace its technologies. One of their greatest concerns is the impact of technology on their teaching roles (Monaghan, 1995). While some authors have written about the teaching roles of on-line instructors (Berge, 2000; McMann, 1994; Danney & Martha, 1999), few studies have focused on how the on-line teaching environment impacts the traditional roles teachers perform in face-to-face classrooms or how instructors feel about how web technology has affected their traditional teaching roles. Therefore, this investigation sought to explore changes in traditional teaching roles experienced by on-line instructors and their satisfaction with such changes. The findings hold implications for those who recruit, hire, train, and supervise on-line instructors.

Related Literature

Educators, such as teachers and trainers, take on a number of roles in their classrooms. According to Webster (1990) a role is defined as a character assigned or assumed; a function. Various authors discuss their ideas of these functions or roles that instructors employ within the context of the traditional classroom setting. It has been suggested that traditional classrooms are based on an instructor paradigm (Torode, 1997; ERIC Digest, 1992), in which the instructor is a role model or example to which students aspire. Teachers and trainers play the role of expert, "the sage on the stage" (Young, 1997; Downe, 1997). In this role, the instructor displays skills or knowledge based on experience, education, or training. Instructors are also lecturers or presenters of this expert knowledge (Swift & Wilson, 1997; Young, 1997; Bauer, 1998; Harris, 1992), delivering the information gathered from research, reading, and experience. Traditionally, teachers play the role of authoritarian (Whitman, 1999) or disciplinarian (Meyen & Lian, 1997; Downe). Other roles include those of course designer (Harris; Young, 1997)

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and discussion moderator or questioner (Harris; Downe; Young). Traditional instructors are also evaluators or critics (Braxton-Brown & Keenan, 1991; Harris; Young) of a learner's work, deciding just how well students master the subject.

Through the growth and acceptance of technology, distance education has emerged and therefore reshapes the roles and functions played by educators. Distance education is defined as any learning that takes place without the physical presence of the instructor with the learner (Boles & Sunoo, 1997). Now, raising even more questions as to the roles and functions of instructors is the appearance of the Internet and World-Wide-Web as a new mode of distance teaching. Even though its use is not currently widespread, the Internet delivers training that is expected to increase dramatically (Bassi, 1997). Higher education and corporations are beginning to take advantage of the Internet as the newest form of distance education. Although there is a body of knowledge on distance education, on-line instruction was not an option when this literature was written. Until more research can be done on teaching on-line, distance education offers some direction as to the roles of these instructors and how they have changed from the traditional classroom. Therefore, it is useful to view on-line instruction as a distance education option. Most of the research on distance education has not looked directly at the effects it has on instructors and the roles they play. These studies do not classify roles of distance instructors; they do, however, make inferences based on students' needs and opinions.

Several authors have commented on the roles that distance instructors play and the ways in which they have changed from traditional teaching roles (Berge, 2000; Danney & Martha, 1999; McMann, 1994). Distance/on-line educating shifts the focus from the instructor being the "sage on the stage" to being the "guide on the side" (Young, 1997). Instructors are now helping the students to learn how to analyze information and have more control over their own learning. Trainers and teachers are no longer focusing on what they can teach but on playing the role of facilitator in the learning process (Swift &Wilson, 1997; Moore, 1997; Meyen & Lian, 1997; Doyle, 1991). Through distance/on-line teaching, instructors become mentors or counselors (Downe, 1997; Whitman, 1999; Torode, 1997; Simonson, 1993; Rangecroft, 1998; Care, 1995). Students frequently feel isolated from instructors and other students in on-line courses. Counseling these students motivates them to participate, and it promotes their confidence. Mentoring also reduces students' fear, and it reduces the sense of teacher as authoritarian, which allows the learner to be in control.

In addition to counselor, other key roles emerge from the growing need for students to do well and feel a part of the learning environment. The distance/on-line teacher must become a communicator (Meyen et al.; Thach, 1993, Simonson). In some distance education there is no nonverbal communication, no body language to read, and no face to face contact. This means that solid communication is imperative to the students' success. Emails and materials such as syllabi must be clear and effective. The instructor must personalize communication through email, phone, or fax. Instructors need to ensure lines of communication are always open. They also need to provide constant feedback. Teaching through distance education means more hours of preparing instruction and materials than in traditional classrooms. Instructors play a more emphasized role of instructional designer (Meyen et al.; Bauer, 1998; Kubala, 1998, Simonson; Swift et al.). Their work is done up front, and there is no room for "winging it." All materials and course preparation must be completed before the first class even begins. Instructors must decide what content to post, work with technicians and other professors to prepare multimedia presentations, and make sure that all lessons encourage student involvement and interaction.

The web continues the long debate between the Objectivist and Constructivist approach to teaching. Under the constructivist model, students are the active processors of information; they are self-directed in their learning. Students have their own questions, and through the use of the Internet, they are able to find their own answers and discover new information through exploration. The instructor plays the role of learning facilitator. The Objectivist model is based on learning objectives set by the instructor. This is a subject-centered approach with definite right and wrong answers. Teachers who use this approach highly manage their instruction. In this, their role is to control the learning environment. The Objectivists use the web for more specific learning activities, exercises, and quizzes. (Fox, no date; Koyanagi, no date).

There are mixed reviews as to distance educators' attitudes and satisfaction pertaining to changes in their teaching roles (Thach, 1993). Some instructors find teaching on-line to be a positive experience (Moore, 1997; Meyen & Lian, 1997). Some instructors see the need and opportunity for on-line teaching. They also see the Internet as a great opportunity for faculty who live in remote areas to have this kind of access. Some even believe that teaching may become more efficient and that these new roles will leave them with more time to do the things they do best (Young, 1997). Although there are those who are pleased with these changing roles and technologies, there is more literature on the frustration and lack of excitement towards these new roles. According to a survey done on the faculty of Florida Gulf Coast University, over half do not believe that more Internet classes should be offered nor do they see the Internet as an effective alternative to traditional instruction (McKinnon, 1998).

Trainers and professors alike worry that on-line learning may be stealing their control and ownership of their courses, and many worry that their jobs will become unstable and that they could be replaced (McKinnon). Teaching is now occurring at home or at an office, and some teachers find it challenging to balance flexibility with some form of a set schedule. Others are just frustrated and resistant to making the move to on-line learning due to role ambiguity (Ullrich, 1998). Instructors know their role is changing. But they do not know exactly how, and they are not being trained to take on such roles. Due to all these frustrations as well as the amount of time for preparation, many instructors feel inadequately prepared and inadequately compensated (Pool, 1996).

Research Questions

For the purpose of this study, three research questions were posed. They included:

1. Are there significant differences in on-line instructors' perceived changes in traditional teaching roles?
2. Is there a significant difference in on-line instructors' satisfaction with on-site versus on-line teaching experiences?
3. What new roles do on-line instructors assume when teaching on-line?

Methodology:

The World-Wide-Web was the sole source of respondents for this survey. Initially, a general search for On-Line Courses was performed using search engines such as Yahoo, MetaCrawler, etc. This resulted in many direct links to courses, as well as directory sites, such as The World Lecture Hall (http://www.utexas.edu/world/lecture) and The Distance Learning Resource Network (http://www.wested.org/tie/dlrn/CollegeDistanceEd.html). Once specific courses and instructors were found, additional on-line courses taught at the same institution were added to the sample pool. A total of 565 cover letters and surveys were e-mailed to on-line instructors. The survey was included in the text of the e-mail message and also attached as a Word document. Respondents were given instructions on how to return the questionnaire. Options included e-mail, fax, or the U.S. postal service. Fax and U.S. mail return options were offered to respondents desiring complete anonymity. One hundred forty-four (144) usuable surveys were returned (25.48% response rate). Some instructors who e-mailed back comments stating that they did not have the time to complete the 65-item questionnaire. Items on the questionnaire related to personal/occupational information, satisfaction with instructor roles, and perceived changes in teaching roles.

Data from the questionnaires was entered into a statistical database from which descriptive and comparative statistics were generated. Descriptive statistics included frequency counts, percentages, and means scores for the selected variables. Comparative statistics included the results of *Chi Square* tests and an *Independent T Test*. The probability level for determining statistical significance was p = .05.

Results

Respondents had a mean age of 52.44 years. Forty-nine (34%) were female and 95 (66%) were male. On average they had taught for 18.92 (SD=10.8) years and on-line for 2.23 (SD=4.31) years. Their main reasons for teaching on-line were to reach more students (38.2%), personal interest/challenge (20.1%), required to (12.5%), job flexibility (8.3%), professional development (6.9%), and to keep up with technology (6.3%). They had received an average of 15.06 (SD=32.51) hours of training on teaching on-line.

The Chi Square Test used to answer question one ((i.e., Are there significant differences in on-line instructors' perceived changes in traditional teaching roles?) reveal several differences (see Tables One-Six). Seven traditional teaching roles showed significant differences with respect to time consumption and challenge, five with respect to role importance, four with respect to role changeability, and three in terms of role satisfaction. The role displaying the greatest number of significant differences was that of Instructional Designer (5 significant differences). With four differences, Evaluator and Role Model had the next highest number of significant differences. Only one significant difference was discerned with respect to the role Information Presenter.

The *Two-Tailed Independent T Test* used to test for a significant difference in on-line instructors' satisfaction with on-site versus on-line teaching experiences (question two) revealed no significant difference (t=1.89, df=143, p=.06). On a five-point likert-type scale, respondents' means score for satisfaction with their overall classroom teaching experiences was 4.72 (SD=4.24) and their on-line teaching experiences was 4.05 (SD=.95).

As for question three, (i.e., What new roles do on-line instructors assume when teaching on-line?) only one new role was identified by a large number of respondents. Forty-seven of the respondents named computer technology consultant as a new role they had taken on as on-line instructors. They reported that students turned to them for technology assistance.

Table 1. Role Changes With Respect To Time Requirements (n=144)

Roles	Less Time Consuming	Equally Time Consuming	More Time Consuming	Chi Square Value	P Value
Authoritarian	32.6%	34.7%	29.9%	26.32	.00
Counselor	20.8%	25.7%	50.7%	.0111	.99
Discussion Monitor	13.9%	18.1%	66%	13.30	.00
Evaluator	07.6%	35.4%	55.6%	17.62	.00
Subject Matter Expert	16%%	50%	32.6%	42.88	.00
Information Presenter	25.7%	20.8%	51.4%	3.00	.22
Instructional Designer	02.1%	10.4%	85.4%	71.49	.00
Mentor	29.9%	26.4%	35.4%	12.47	.00
Role Model	31.9%	33.3%	31.9%	21.61	.00

Table 2. Role Changes With Respect Role Importance n=144

Roles	Role Less Important	Role Equally Important	Role More Important	Chi Square Value	P Value
Authoritarian	36.8%	46.5%	15.3%	32.97	.00
Counselor	17.4%	47.9%	33.3%	5.14	.08
Discussion Monitor	9%	38.9%	50.7%	50.90	.00
Evaluator	1.4%	58.3%	37.5%	32.37	.00
Subject Matter Expert	10.4%	64.6%	22.9%	7.19	.03
Information Presenter	15.3%	50%	31.3%	3.57	.17
Instructional Designer	25.7%	70.8%	.7%	45.56	.00
Mentor	20.1%	50.7%	22.2%	.71	.7
Role Model	24.3%	50%	20.8%	4.16	.13

Table 3. Role Changes With Respect Role Challenge n=144

Roles	Role Less Challenging	Role Equally Challenging	Role More Challenging	Chi Square Value	P Value
Authoritarian	16%	50.7%	31.3%	2.58	.28
Counselor	12.5%	46.5%	36.1	.01	1.00
Discussion Monitor	6.9%	31.3%	59%	30.13	.00
Evaluator	1.4%	52.8%	44.4%	18.49	.00
Subject Matter Expert	7.6%	59%	31.3%	10.2	.01
Information Presenter	9.7%	31.9%	55.6%	21.06	.00
Instructional Designer	22.9%	0%	73.6%	85.86	.00
Mentor	19.4%	45.1%	27.1%	7.39	.03
Role Model	22.2%	40.3%	34.7%	9.71	.01

Conclusions

Several conclusions may be drawn from the results of this exploratory study. It appears that some on-line instructors perceive many changes in the traditional roles that they perform in face-to-face instruction. The major changes appear to be related to time requirement and challenges associated with performing traditional teaching roles. For example, 85.4% of the respondents found the role of Instructional Designer more time consuming with on-line teaching. Sixty-six percent (66%) found the role Discussion Monitor and 55% found the role Evaluator more time consuming. Approximately seventy-four percent (73.6%) of the respondents found the role Instructional Designer more challenging. Fifty-nine percent (59%) found the role of Discussion Monitor and 55% found the role Information Presenter more challenging. Other notable changes in roles occurred with respect to role importance and changeability. For example, 50% of the respondents perceived the role of Discussion Monitor as being more important and 46.5% of the respondents view the role of Instructional Designer as being more changeable (i.e., more dynamic or fluid).

Table 4. Role Changes With Respect Daily Changes In Performance of Role n=144

Roles	Role Less Changeable	Role Equally Changeable	Role More Changeable	Chi Square Value	P Value
Authoritarian	16%	47.9%	28.5%	.58	.75
Counselor	14.6	57.6%	19.4%	5.88	.05
Discussion Monitor	9.7%	47.2%	36.1%	4.83	.09
Evaluator	13.9%	52.8%	27.1%	.27	.87
Subject Matter Expert	11.1%	54.9%	26.4%	1.61	.45
Information Presenter	13.2%	48.6%	29.9%	.31	.86
Instructional Designer	3.5%	41.7%	46.5%	30.29	.00
Mentor	18.8%	51.4%	16%	10.7	.01
Role Model	24.3%	51.4%	14.6%	20.81	.00

Table 5. Role Changes With Respect Role Satisfaction n=144

Roles	Role Less Satisfying	Role Equally Satisfying	Role More Satisfying	Chi Square Value	P Value
Authoritarian	16.7%	61.8%	14.6%	1.34	.51
Counselor	20.8%	58.3%	16.7%	.04	.98
Discussion Monitor	21.5%	56.3%	20.8%	1.93	.38
Evaluator	12.5%	70.1%	15.3%	6.09	.05
Subject Matter Expert	13.2%	68.8%	16%	5.73	.06
Information Presenter	20.1%	55.6%	22.2%	3.26	.2
Instructional Designer	4.9%	56.9%	35.4%	48.63	.00
Mentor	25%	54.2%	13.9%	2.58	.28
Role Model	28.5%	59%	9%	9.22	.01

Another conclusion derived from the study is that some on-line instructors are not generally significantly more or less satisfied with their on-line teaching experiences than they are with their "regular" on-site teaching. However, an inspection of perceived satisfaction changes with respect to specific roles, revealed that 35.4% of the respondents experienced increased satisfaction with the role of Instructional Designer. This is the same role that 85.4% of the respondents found more time consuming and 73.6 found more challenging. It would appear that a large number of the instructors took on the challenge of designing instruction for the web and found it more satisfying than their on-site instructional design efforts. The roles of Role Model and Mentor had the greatest number of instructors (28.5% and 25% respectively) indicating they viewed their on-line performance of the roles as being "less satisfying."

Finally, it appears that many on-line instructors performed the same roles in their on-line instruction as they do in their face-to-face teaching. When asked to identify the new roles they had taken on as on-line instructors, only one new role reported-technology consultant. Comments from respondents suggested that the on-line instructors were using new "methods" to perform traditional teaching roles and that their on-line students looked to them for assistance with computer technology.

Discussion

The results of this investigation tend to support the findings of other writers. For example, the finding that seven traditional teaching roles showed significant differences with respect to time consumption and challenge corresponds with the research of Ullrich (1998) and Pool (1996). Furthermore, the finding that the role of Instructional Designer undertook the greatest number of significant changes is consistent with the findings by several researchers (Meyen et al.; Bauer, 1998; Kubala, 1998, Simonson; Swift et al.) who speak of the more emphasized role of instructional designer among on-line instructors. The small amount of training instructors received in preparation for teaching on-line is also consistent with comments from Pool (1996). Nevertheless, additional research into the methods being used by instructors to perform traditional roles is needed. Some of the methods changes appear to be overt and were hinted at in respondents' comments. Other more subtle changes were not touched upon by the results of this study.

The results of this study hold implications for those who recruit, hire, train, and supervise on-line instructors. For example, some of the instructor's reasons for teaching courses on-line might be mentioned by recruiters as potential benefits (i.e.., reach more students, personal interest/challenge, job flexibility, professional development, and keep up with technology) to prospective instructors. Given the fact that on-line instruction heavily relies on instructor written communication and technology skills (Meyen et al.; Thach, 1993, Simonson), it is important that recruiters screen potential hires in terms of their expertise in these areas. Respondents in the study indicated that many of their traditional roles became more challenging due to the need to be more "guiding," "directing," and "explicit" in their communications with students. Instructors also indicated that many of the roles were made more challenging by the technology.

The results that respondents in the study only received 15.06 hours of training in preparation to teach on-line suggest that on-line instructors are not being adequately prepared for their new on-line teaching assignments. It is likely that additional training is needed and that some of the additional training might be well spent on the design of web-based courses and materials. Additional training should also be given in preparing instructors to perform the role of "technology consultant." The additional time required to prepare (i.e., design) on-line courses and materials should be taken into consideration by supervisors in terms of teaching loads (i.e., the number of courses an instructor is required to teach) and/or compensation. Furthermore, evaluation instruments used by students to evaluate on-line instructors may need to be revised to include new teaching methods and strategies being used to perform traditional teaching roles as well new emerging roles.

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Factors Affecting Student Completion in a Distance Learning Mediated HRD Baccalaureate Program

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This study analyzed factors affecting degree completion of the nontraditional adult students in a distance learning mediated, degree-completion HRD program. Demographics, number of technical and general education hours transferred, work-related and family-related variables were examined to determine those factors most likely to predict program completion.

Keywords: Distance Learning, Working Adults, HRD Baccalaureate Degree

Many American businesses have restructured to meet the demands of a global economy in order to compete with businesses in other countries. Because of that, American workers face a new challenge in having to upgrade continually their knowledge and skills, or in learning new skills in order to remain competitive and increase their earning power (Dubois, 1996). These demands require the American workforce to be more educated to function in a global community. For this reason, more and more working adults (nontraditional students) seek higher educational opportunities for upgrading the skills and knowledge needed in business today. The absence of an earned bachelor's degree limits opportunities for working adults to graduate education and access to higher positions and career advancement (Chu, Martinez, & Hinton, 1999).

Theoretical Framework

The growth of nontraditional students enrolling in higher education reflects the changing demographics of university and college student populations. Over one third of the students now enrolled in U. S. colleges are more than 35 years old. Between 1983 and 1993, enrollment increased about 15 percent, from 12.5 million to 14.3 million. Much of this growth was in part-time and female enrollment. The number of older students has been growing more rapidly than the number of younger students. Between 1980 and 1990, the enrollment of students under age 25 increased by 3 percent while the enrollment of persons 25 and over rose by 34 percent. From 1990 to 2000, National Center for Education Statistics (NCES) projects a rise of 12 percent in enrollments of persons over 25 and an increase of 13 percent in the number under 25. Nontraditional students can be defined as having multiple roles such as parent, employee, student and so on. Nontraditional students are also defined as being over twenty-four years of age or returning to school after a break in their education (Hirschorn, 1988). They are often married, work, and have children, so returning to school means making a significant change in their life style.

The growth of nontraditional adult student enrollment in higher education demands a different and more flexible delivery system in order to meet the students' need. Distance education is one method that higher education institutions are turning to help meet the special needs of the nontraditional adult student. Distance education is any instructional activity in which the instructor and the learner are separated by space or time (Keegan, 1986). It also provides powerful tools for locating, synthesizing, and creating resources in digital schools without walls to both instructors and learners (Ludlow & Duff, 1998). It is seen as a promising mechanism for improving access to education by increasing the size of service areas (Jacobsen, 1994). It reaches nontraditional learners who cannot afford the time and expense (Ehrmann, 1990). It also enhances the quality of education through multimedia and interactive instruction. In addition, it controls costs by increasing enrollments without additional capital investments (Blumenstyk, 1994).

Distance learning is compatible with the characteristics and needs of the adult learner. By being able to maintain their current job while attending school, nontraditional adult distance learners are able to continue to gain

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in work experience while simultaneously pursuing educational goals. Continued work experience enriches the learning process for the individual. The individual's experiential contribution can also enhance the learning process for the other students as well.

While the literature speaks extensively to the characteristics and needs of adult learners, there is a need for research on the impact of distance learning on adult student degree completion. What, if any, is the impact of the demographics of adult learners, work-related variables, and family, or employer support on the graduation rates of these students? Does access to a degree completion program insure student success? It was these questions that sparked this study.

Research Questions

The key question in the study was the following: What are the factors affecting degree completion of nontraditional students in a distance learning mediated, HRD bachelor degree-completion program? This study was guided by research questions that asked, Is there a difference between students who have graduated or are on-track to graduate and those who are not graduating in terms of the *number of credit hours of general education and the number of credit hours of technical requirements* earned prior to program entry, *selected demographic factors, selected work-related factors, family-support factors, and employer-support factors?* The study also sought to determine what *combination of factors* best predicts student graduation?

Methodology

The population of the study was all adult (nontraditional) learners in a distance learning B.S. Ed. HRD degree completion program option. There were three cohorts distributed in ten different sites. The total population of students was 111 with the sample being the 106 students responding to the survey. Cohort one and cohort two, which were launched in 1996 and 1997, have finished their academic work in the HRD distance-learning program. Cohort three, which was launched in 1998, was scheduled to finish their course work with the HRD degree completion program in Spring 2000. The sample was divided into two groups: (a) students who have graduated or were on-track to graduate within four years and (b) students who are not graduating.

The Survey Instrument

A survey questionnaire, HRD Student Enrollment Survey, was used to collect data to answer the research questions in the present study. A five-point Likert-type scale was adopted for the attitudes that the respondents possessed toward family support and employer support. The survey had three sections. The first section elicited personal information such as name, address, site, cohort, age, gender, ethnicity, prior credit hours gained, and associate degree completion status. The second section gathered information about work experience including number of years of work experience, type of work, and kind of organization. The third section contained questions about family support and employer support. Family support included verbal encouragement, financial support, child care assistance, help with responsibilities at home, and transportation. Employer support included verbal encouragement, tuition reimbursement, and time off from work to attend classes.

Data Analysis

A series of descriptive analyses was conducted before an inferential statistical test for each research question. Descriptive statistics reported frequencies (n) and percentages (%) of respondents who have graduated or are on-track to graduate and those who are not graduating based on demographic data, work-related data, and the sub-items of family support and employer support collected from the survey.

Inferential statistical tests (t-test, Chi-square, and Logistic Regression) were performed to test the seven research questions. To compare if there was a difference between two group means, a t-test was used. Pearson's chi-square was used to determine if there was a difference between two group percentages. The significance level (α-level) for accepting or rejecting all hypotheses was set at .05 (Wiersma, 1991). Logistic regression analysis, which was conducted to determine if the selected variables in combination could predict whether students graduate or not.

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Findings

The following is summary of both descriptive data and inferential statistical findings:

Demographics

The majority of the participants were female, who consisted of 68.9 percent of the total respondents, while the male participants consisted of 31.1 percent. The majority (72.6%) of the participants in this program was between the ages of 31 - 50. The two largest groups in this study were 31-40 years (36.8%) and 41-50 years old (35.8%). Of the 106 respondents, 77 fell into these two categories. Only fourteen (13.2%) of the respondents were younger than 30 years old. Twelve (11.3%) of the respondents were between 51 - 60 years old. There were no students younger than 22 or older than 61. The majority of the respondents were White (86%). Thirteen (12.3%) of the respondents were black. Other ethnicity groups included one American Indian, one Asian, and one Hispanic student. The majority of the respondents (83%) lived within 25 miles of the class location. The largest group (61.3%) lived within 10 miles from the classroom while only eight respondents (7.5%) needed to drive more than 50 miles to attend the classes. A majority (54.7%) of the students entered this degree completion program with an associate degree. The majority of the respondents (79%) had between 11 - 30 years of work experience. The largest group (31.1%) had between 21 - 30 years of work experience. Forty-five (42.5%) of the respondents described their work as being in management, and 16 (15.1%) of the respondents described their work as supervisory. Forty-three (40.6%) described their positions as being non-supervisory in nature. The results show that the largest percentage of the respondents (33%) worked in an educational setting. The second largest type of organization was manufacturing (21%) followed by health (12.3%), government agency and service industry (10%), and transportation (7%). The remaining students fell into the category of others.

A majority of the respondents (62.3%) worked in their present jobs for 5 years or less. Eighty-two percent of the respondents worked in their present jobs for 10 years or less. The largest group (38.7%) of the respondents worked in their present jobs within 2-5 years. The second largest group (23.6%) worked in their present jobs for less than one year. The third largest group (19.8%) worked in their present jobs within 6 - 10 years. Those who worked in their jobs for more than 10 years comprised only 17.3% of the respondents with 7% having worked between 11-15 years and 5.7% more than fifteen years. This item also showed only one respondent working on the present job for more than 21 years.

The largest group of the respondents (39.6%) worked for medium sized companies and organizations with 100 to 500 employees. The second largest group (20.8%) fell into the first category, which was organizations with less than 50 employees, followed by 501 to 1000 employees (11.3%), 10001 and above employees (9.4%), 1001 to 5000 employees (8.5%), below 100 employees (5.7%), and 5001 to 10000 employees (1.9%).

In summary, by using modes as a guideline, a typical survey participant is described generally as follows: A 31 to 40 year-old white female, who has earned an associate degree with 18 general credit hours and 33 technical credit hours brought into the program. She works in an educational organization with 100 to 500 employees. She has worked in the present management position for 2 to 5 years.

Analysis of Previous Hours Taken, Demographics, Work-Related, Family Support and Employer Support Factors

Results of the analyses indicated that there is a significant difference between students who have graduated or are on-track to graduate and those who are not graduating in terms of the *number of credit hours of general education* requirements earned prior to program entry, (4.066 with a probability of .000); *number of technical credit hours* earned prior to program entry, (t-value of 2.932 with a probability .004), in terms of an *associate degree earned* prior to program entry (X^2 value was 3.958 with a p-value of .047) and in terms of family support (t-value of t 2.083 with a p-value of .040). Individual factors which were not found to be significant included: *gender, age, ethnicity, distance to attend classes, type of work, type of organization, total number of years of work experience, number of years in present jobs, number of employees in the organization, and employer support.*

The study sought to determine in *combination* what demographic variables, work-related variables, general and technical credit hours earned prior to program entry, and family and employer support best predicts students' graduation. Logistic regression was conducted to estimate how well the selected variables could predict graduation to occur. The purpose of the logistic regression analysis was to predict the probability of graduation by using all the variables. The variables included: (a) gender, (b) age, (c) ethnicity, (d) the number of general credit hours earned prior to the program entry, (e) the number of technical credit hours earned prior to the program entry, (f) an associate degree earned prior to the program entry, (g) the number of years of work experience, (h) the type of work,

(i) the type of organization, (j) the number of years in present job, (k) the number of employees in the organization, (l) family support, (m) employer support, and (n) the distance to attend classes.

In logistic regression analysis, the greater the Wald value, the greater the probability is of an event to occur. The number of the general credit hours earned prior to program entry (Wald value = 11.0380 with a significance of .0009) played an important role in the graduation of the respondents. From Table 1, a direct estimation of the probability of an event occurring can be made by computing the *B* (effect coefficient), *X* (the independent variable), and *e* (the base of the natural logarithms, approximately 2.718) using the formula: Prob (event) = $1/\left(1+e^{-z}\right)$, where $Z = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + \ldots$ The probability of the event not occurring is estimated as Prob (no event) = 1- Prob (event). Based on this estimate, predictions of the probability to graduate can be made. The event is predicted to not occur if the estimated probability of the event is less than 0.5. The event is predicted to occur if the estimated probability of the event is greater than 0.5 (Table 1).

The number of technical credit hours earned prior to the program entry was significantly related to the graduation with the Wald value 4.0591 and a significance of .0439; the number of general studies hours previously completed had a Wald value 11.0380 and a significance of .0009. Employer support was also significantly related to the graduation with the Wald value of 4.9612 with a significance of .0259. One can conclude that the combination of these three variables best predicts student graduation.

The results seemed contradictory with the t-test results of employer supportive individually (significance level of .175), which showed no significant difference on students' graduation. Thus, some variables might not make a significant difference when they are tested alone, but they become significant when they are combined with other variables. One can conclude that when general credit hours earned prior to program entry, technical credit hours earned prior to program entry, and employer support were *combined*, there is a significant difference made in student graduation in terms of the combination of these three variables.

Table 1. Parameter Estimates for the Logistic Regression Model (1)

Variables in the Equation					
Variable	B	S. E.	Wald	Sig	R
GENDER	-.6150	.7122	.7457	.3878	.0000
AGE	-.4543	.5448	.6952	.4044	.0000
ETHNIC	-.5221	1.0549	.2450	.6206	.0000
CREDGEN	.1083	.0326	11.0380	.0009	.2635
CREDTECH	.0668	.0331	4.0591	.0439	.1258
AADEGREE	-1.0759	.8209	1.7179	.1900	.0000
YRWORK	.5252	.4093	1.6462	.1995	.0000
TYPEWORK	.1562	.4904	.1014	.7501	.0000
TYPEORG	.3618	.2136	2.8700	.0902	.0801
YRPREJOB	-.1451	.2429	.3571	.5501	.0000
NUMPEOPL	-.1888	.1849	1.0425	.3072	.0000
FAMISUP	.2447	.3711	.4349	.5096	.0000
VERBAL	-.3141	.8936	.1236	.7252	.0000
FINANCE	.4847	.7703	.3958	.5292	.0000
CHILDCARE	-.4781	.9063	2.6602	.1029	-.0712
HELPHOME	-.4393	.7335	.3587	.5492	.0000
TRANSPORT	.9106	.7988	1.2997	.2543	.0000
EMPOSUP	1.0933	.4908	4.9612	.0259	.1508
VERBALEM	.6078	.8399	.5237	.4693	.0000
TUITION	-.1048	.7282	.0207	.8855	.0000
TIMEOFF	1.4768	.8302	3.1642	.0753	.0946
DISTANCE	.4355	.3128	1.9388	.1638	.0000

$p < .05$

Another way to assess how well the logistic regression model fits is to compare the predictions to the observed outcomes (Figure 1). From the table in Figure 1, 38 respondents who are not graduating were correctly predicted by the model. Similarly, 32 respondents who have graduated were correctly predicted. A total of 23 respondents were misclassified in this model – 11 respondents are not graduating and 13 respondents have graduated. With the respondents who have graduated, 71.11% were correctly classified. Of the respondents who are not graduating, 77.55% were correctly classified. Overall, 74.47% of the 94 respondents were correctly classified.

Figure 1. The Classification Table for Graduation through Goodness of Fit with All Variables

The Cut Value is .50 Predicted

		Not Graduate	Graduated	Percent Correct
Observed		n	g	
Not Graduated	n	38	11	77.55%
Graduated	g	13	32	71.11%
				Overall 74.47%

Since the results showed that general credit hours, technical credit hours earned prior to program entry, and employer support were the best combination for predicting student graduation, another logistic regression was tested based on these three items only. The results (Table 2) showed that all the three variables were significant. The Wald of general credit hours was 13.77 with a significance of .0002. Technical credit hours had a Wald of 8.67 with a significance of .0032. Employer support had a Wald of 4.51 with a significance of .0337. The results gave a confirmation that these three variables were the best combination for prediction of student graduation.

Table 2. Parameter Estimates for the Logistic Regression Model (2)

----------------------------------Variables in the Equation ----------------------------

Variable	B	S. E.	Wald	Sig	R
CREDGEN	.0770	.0208	13.7777	.0002	.2833
CREDTECH	.0711	.0241	8.6718	.0032	.2132
EMPLOSUP	.4241	.1997	4.5103	.0337	.1308

Goodness of fit test results (Figure 2) showed that with these three variables, 38 non-graduates were correctly predicted. Similarly, thirty-eight graduates were also correctly predicted. A total of 30 respondents were misclassified in this model — 17 respondents are not graduating and 13 respondents have graduated or are on-track to graduate. With the respondents who have graduated, 74.51% were correctly classified. Of the respondents who are not graduating, 69.09% were correctly classified. Overall, 71.70% of the 106 respondents were correctly classified. This model predicted students who have graduated better than the previous model with all the factors (74.51% vs. 71.11%). The overall prediction rate was also higher than the previous model, which was 71.70% out of 106 respondents compared to 74.47% out of 96 respondents. This means that 76 respondents were correctly classified in this model compared to 71 respondents that were correctly classified in the previous model.

Figure 2. The Classification Table for Graduation through Goodness of Fit with Three Variables

The Cut Value is .50 Predicted

		Not Graduated	Graduated	Percent Correct
Observed		n	g	
Not Graduate	n	38	17	69.09%
Graduated	g	13	38	74.51%
				Overall 71.70%

Discussion

The following discussion is limited to those factors found to be associated with program completion. Factors not found to be associated with graduation are not discussed because of space constraints.

General Education Credit Hours

The study revealed that the number of general credit hours earned prior to program entry did affect the degree completion between those who have graduated or are on-track to graduate and those who are not graduating. According to the t-test, respondents who earned more general credit hours prior to program entry were more likely to complete their degrees on time. There is no direct literature that supports that the more general credit hours students earned prior to program entry, the more likely they are to graduate. However, literature support the idea that continuous enrollment plays a big role in degree completion (Adelman, 1999). It can be assumed that if students keep enrolling in school, they continue to gain in the number of credit hours earned.

Technical Credit Hours

The study also revealed that the number of technical credit hours earned prior to program entry differed significantly between students who have graduated or are on-track to graduate and those who are not graduating. According to the t-test results, the findings indicated that the more technical credit hours the students earned prior to program entry, the more likely they were to graduate on time. Graduates had significantly more technical credit hours earned prior to program entry.

Again, there is no direct literature related to the relationship between technical credit hours earned prior to program entry with student graduation. One can assume that if the students keep enrolling in school, the more technical credit hours they would have earned. With more technical credit hours earned prior to program entry by the students, the more likely they are to graduate on time.

Family Support

It is not surprising that family support played an important role on degree completion of the participants. Since this distance HRD degree completion program offered classes five hours on Friday evenings and five hours on Saturday mornings, students had to take time from their family or from other responsibilities at home. In addition, homework and assignments also took away from their family. Family factors are personal because they are unique to every individual. It has been confirmed that non-completion in adult students is normally due to personal or financial factors rather than to academic failure (Lucas & Ward, 1985). The test results showed that family support was one of the factors that affected the degree completion of the respondents. One can conclude that graduates had more family support than did non-graduates. However, there is a need for further analysis of family support factors.

Employer Support

There is one factor – employer support – that surprisingly did not affect students on their degree completion when it was tested individually. From one of the previous studies on employer support and academic success by Dinmore (1997), employer support is one of the most powerful motivators for re-entry adult students, particularly if the employers offer their full tuition reimbursement. It seems surprising that the test results did not indicate that employer support was one of the factors affecting degree completion of the respondents, since employer support has been confirmed by the literature as one of the important factors affecting academic success of working adult students. Even though employer support was not significant when it was tested individually, it was significant when it was combined with the other two.

From the test results, the researcher found the factors affecting academic success (degree completion) were highly individualized. Demographic factors such as gender, race, and age seemed to have no effect on student's degree completion. Since they were working adults, the researcher took working conditions into account as factors such as the number of years of work experience, the type of work, company size, and the type of organizations where they worked. The results showed that those variables did not affect degree completion. What affected degree completion were factors that related to individual students such as the number of general credit hours and technical credit hours they earned prior to program entry, whether they entered the program with or without an associate degree, and whether or not they received family support.

However, employer support was found significant as tested by logistic regression analysis. It was a significant factor affecting student graduation when combined with two other factors – general credit hours earned prior to program entry and technical credit hours earned prior to program entry. Logistic regression was conducted to estimate how well the selected variables could predict graduation to occur. The test results showed that the best model to predict student graduation was the combination of these three variables, which were general credit hours earned prior to program entry, technical credit hours earned prior to program entry, and employer support. The test results were consistent with the literature that employer support is one of the important factors for working adult students pursuing their educational goals. According to the discussions above, one can conclude that general and technical credit hours earned prior to program entry, an associate degree earned prior to program entry, family support, and employer support were the factors affecting degree completion of the nontraditional students in an HRD degree completion program in distance learning.

How This Research Contributes to New Knowledge in HRD

This study suggests factors that affect the degree completion of nontraditional adult learners in distance education, particularly in the field of Human Resource Development. The findings of this study may help program planners and curriculum developers design support programs and academic enhancement activities that will help students achieve academic success. An important implication for this research is the potential use of the findings to improve students' graduation completion rates. The study also raises some issues that should be investigated further. Several implications and recommendations can be made based upon the study.

Future studies should focus in more detail on family support to see how it affects student graduation rates. Based on the single-factor Likert scale in this study, family support is an important factor for students to graduate on time. Although there were subcategories related to family support, these subcategories did not indicate the degree of importance each had in the overall rating of family support. The respondents were asked to check a subcategory if they had support in this area. However, while one can conclude that any respondent who marked this subcategory had such support, what is missing is the ability to make inferences about those who did not mark a subcategory. One cannot conclude whether they lacked support in this area or whether it was simply not a necessity or concern. For instance, in the area of child care the respondents were not asked if they had any children, or if they had children whether child care was a necessity. The same can be said for financial support or any of the other categories. A more detailed questionnaire or a more comprehensive Likert scale that requires answers from all respondents could then allow for a comparison to be made between students who have graduated and those who are not graduating to see whether the two groups differ significantly or not.

Employer support is also an important factor for students to continuously pursue their educational goals. In the present study, employer support did not make any difference between students who have graduated or are on-track to graduate and those who are not graduating when it was tested individually. The descriptive statistics indicated that the majority of the respondents received rather high support from their employers. Does it imply that employer support might be very encouraging for employees taking classes in their related field, but it might not be the factor enhancing employees to complete degrees? However, the test results of logistic regression analysis pointed out that employer support was a factor affecting student graduation while combined with the other two factors – general credit hours earned prior to program entry, and technical credit hours earned prior to program entry. It became significant when it was tested in the combination with the other two factors. Further studies should focus on the relationship between employer support and student academic success (degree completion) in detail.

Distance education has been considered an adopted child in higher education. Students take courses by distance education because of its convenience and the accessibility. Literature found that there is no difference between distance learners and traditional students on performance, but research studies related to student satisfaction in distance learning seldom can be found. Future studies should also focus on student satisfaction between distance learners and the defined distance learners described in the literature. Comparisons also can be made between distance learners in cohort groups and traditional students; and between distance learners in cohort groups and the nontraditional students in traditional educational settings.

Further Study

An in-depth qualitative study of students and their supervisors in this program has been completed. Results of the 38 interviews examining factors affecting student success as well as other issues such as expectations at the beginning of the program, program challenges, program strengths and benefits, course evaluations and competencies implemented, program outcomes, and program recommendations are being analyzed and will be reported at a later date. Both the quantitative and qualitative studies conducted with this population have been supported by a grant from the U.S. Department of Education, Fund for the Improvement of Postsecondary Education (FIPSE).

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Experiences of Web-based Instruction among African-American Students Enrolled in Training and Development Graduate Courses

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The purpose of this study was to describe the online experiences of African-American students participating in web-based training and development graduate program courses. The experiences described in this study give insight as to why African-American students do not participate or continue to participate in web-based courses at the graduate level. The study identified experiences relating to learner-instructor interactions. Conclusions and implications for practice and future research are given.

Keywords: Web-based Instruction, African-American Students, Technology

Historically, cultural, economic, and power-related factors have worked against the success of African-American students in institutions of higher education (Richardson, 1997). The integration of technology may be adding to these factors of African-American student success. Many African-American students are entering higher education without the skills necessary to effectively use the new information technology tools and resources (Resta, 1994; Slater, 1994). Factors such as access, affordability of computer courses, choice of institution, and lack of training have created a "digital divide" in higher education between African-American students and other ethnic groups. The "digital divide", defined as the gap between the numbers of African-American students and other students who have access to computer technology, has become an issue of concern in all areas of education and training. Although the gap of the "digital divide" is narrowing, currently approximately 15 percent of African-American students have access to or own computers, as compared to 55 percent of students nationally (Carlson, 2000). The longer the "digital divide" continues to exist, the farther behind in technology African-American students will fall.

The delivery of instruction through the World Wide Web continues to grow at an exponential rate. Previous research has examined the differences between face-to-face teaching and online teaching (Russell, 1997), learning style changes in a technology based learning environment (Cohen, 1997) and the instructional design of web-based courses (Braden, 1996). Current studies identify access to technology as one of the key factors in creating the "digital divide" (Carlson, 2000). Yet, research has not expanded beyond access as a factor in enhancing the "digital divide". Hence, a major question yet to be explored by the field of Human Resource Development (HRD) is: "What experiences account for African-American students not participating in web-based courses?

According to proponents of computer technology, technology promises inclusion, equality and empowerment. However, based on the research on African-Americans and computers it is less likely that African-American students will be equipped to participate in the information on the Internet. Instead of numerous benefits, for some African-American students the Internet can perpetuate exclusion, inequality, and disenfranchisement (Resta, 1994; Slater, 1994; Richardson, 1997). With a 72 percent rise in the number of distance education programs at colleges and universities, where the primary medium for delivery is the Internet (National Center for Education Statistics, 2000), African-American students may become detoured off the education and training information superhighway. Hence, an investigation of actual online experiences may give some insight as to why African-Americans students do not to participate in courses offered via the World Wide Web.

The purpose of this study was to describe the online experiences of African-American students participating in web-based training and development graduate program courses. The experiences described in this study give insight as to why African-American students do not participate or continue to participate in web-based courses at the graduate level.

Conceptual Framework

While conceptual frameworks exist about African-American students within the traditional classrooms (Burlew,

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Banks, McAdoo, Azibo, 1992; Justiz, Wilson, Bjork, 1994), far less has been written about African-American students in a web-based learning environment. Researchers (Beckles, 1997; Hoffman & Novak, 1998; Kirk & Shoemaker, 1998) have analyzed barriers to Internet access, but no studies have investigated the experiences of African-American students who have completed web-based courses, specifically at the graduate level.

Several models (Holmberg, 1986; Moore, 1989; Moore, 1996) exist concerning the learner in a technological environment. However, in determining the conceptual framework to undergird this study, Moore's (1996) framework and Hoey, Pettitt, and Brawner (1997) were utilized because each focus on the student perceptions in a distance learning environment. These frameworks consist of three components: (1) learner-instructor interaction; (2) learner-learner interaction; (3) learner-content interaction and (4) learner-environment interaction. For the purpose of this study the constructs of learner-instructor, learner-learner, and learner-environment interactions were investigated.

Learner-Instructor Interaction

Moore (1996) describes learner-instructor interaction as a multifaceted interaction. This interaction is between the learner and the instructor where the instructor plans a program of instruction, attempts to motivate students to learn, make presentations, organizes opportunities for learners to acquire relevant skills, evaluates their progress, and provides support and encouragement to the learners.

Learner-Learner Interaction

Learner-learner interaction is seen as the new and challenging component of distance education. Moore (1996) refers to this interaction as "inter-learner interaction between one learner and other learners, alone or in group settings, with or without the real-time presence of an instructor" (p. 22). As determined by Schutte (1997), this dimension is important because it shows that online students actually outperformed students in otherwise identical section of his statistics class by adopting group learning strategies.

Learner-Environment Interaction

Learner-environment interaction is a fourth dimension proposed by Hoey, Pettitt, and Brawner (1997). This interaction involves the relationship between the type of technology employed and the physical and virtual environment created. According to these authors, this aspect of learner interaction is important in determining the learner's comfort level with a particular technology, which can play a great role in determining success or failure in a web-based course. This dimension builds on the work of Smith (1997) who introduced the learner-technology interaction.

Research Questions

The purpose of this study was to describe the online experiences of African-American students participating in web-based training and development graduate program. The following research questions guided this study:

1. What experiences do African-American students enrolled in a training and development graduate program report as they relate to participation in their current web-based course?
2. What experiences do African-American students enrolled in a training and development graduate program report as they relate to participation in future web-based courses?

Research Design

In order to determine the experiences reported by African-American students during their participation in web-based training and development graduate courses, this study utilized a qualitative research paradigm. The objective of using the qualitative paradigm was to identify recurrent patterns in the form of categories.

The study was conducted on a predominately white Research I institution in the south. The participants in this study were graduate students who identified themselves as African-American, Black, or biracial (African-American/other) and have completed a web-based course in a training and development program. A total of ninety students have completed web-based courses in the program, where fifteen percent (N = 14) of these students were African-American. Of these fourteen African-American students, five completed the online course and nine withdrew from the course prior to completion. Table 1 summarizes the course completion rates of the African-American students.

Table 1. Completion Rates of African-American Students in Web-based Courses in Training and Development Courses

Characteristic	N	%
Total number of students who completed web-based training and development graduate courses	90	100
Total number of African-American students enrolled in web-based courses	14	15
Total number of African-American students who completed web-based courses (from the total of African-American students only)	5	36
Total number of African-American students who did not complete web-based courses (from the total of African-American students only)	9	64

The data was collected from these students by conducting standardized open-ended interviews via an asynchronous electronic discussion board. In the standardized open-ended interviews, the exact wording and sequencing of questions were determined in advance and all students were asked the same questions in the same order. Utilizing this method of interviewing ensured complete responses from each interview and it increased the comparability of the responses (Patton, 1990). For these participants, the electronic discussion interview technique was appropriate because students who participate in online courses are accustomed to and familiar with communicating using an asynchronous electronic discussion tool. Because the ability to communicate in an online environment is a requirement for participation in all web-based courses in the training and development program, the researcher did not select a more traditional means for interviewing.

These participants were asked open-ended questions in relation to motivation and persistence, interaction with other students, interaction with the instructor, interaction with the environment, and the instructional design of the course. These open ended questions, explored six general content areas: interactions with instructor, interaction with other students, social and formal interactions, instructional methods, use of time, and motivation.

The data consisted of electronic text from the responses of each individual interview. The electronic text was verbatim directly from the participants; therefore, no transcribing was necessary. The data analysis was conducted as an activity simultaneously with the data collection and data interpretation. As the verbatim data was collected electronically, it was sorted into categories based on the topics of the structured interview guide. The data in the initial categories were re-coded utilizing the schema from Moore (1996) and Hoey, Pettitt, and Brawner (1997).

Findings

The six general content areas explored during this study; interactions with instructor, interaction with other students, social and formal interactions, instructional methods, use of time, and motivation, were analyzed from the perceptions of the African-American students who participated in web-based training and development courses. Due to space limitations, this paper will only report on the findings related to learner – instructor interactions.

The findings from this study will be presented in two areas:

1. Accessibility and responsiveness of the instructor (learner – instructor interaction)
2. Instructor's expectation of the student (learner – instructor interaction)

Accessibility and Responsiveness of Instructor

Experiences with the accessibility and responsiveness of the instructor during the web-based course emerged throughout each of the interviews. These experiences were represented by statements such as:

- "For one course I was extremely disappointed. There was almost no contact or feedback from the instructors in one course. The format was divided into content instructor and technical instructor. The technical instructor made a few contacts and gave feedback, but the content instructor responded to nothing, not even phone calls. It was very insulting to have a professor flat out ignore you. For the other course, the feedback has been prompt and consistent. The instructor is extremely accessible and encourages students to utilize his on campus office hours if clarification is needed on class topics."

- "Yes, she constantly stayed in contact via e-mail and provided the students with several options when trying to contact her (phone, fax, and etc.)."
- "There were delays in the beginning of the class that made me feel disconnected."
- "There were periods of time in which we had no interaction with the course instructors. They were inaccessible by email, phone, and face to face interaction."
- The majority of the time the instructor and I could not reach each other via email."
- "The class notes were wonderful, very organized, detailed, and always available on the class web site."
- "I was dissatisfied with the down-time. At one point we were not given an assignment for at least three weeks."
- "I did not receive any feedback on any of the work that I turned in. I feel that this would not have been an issue in a traditional classroom setting where I could talk to that teacher face to face."

The accessibility of the instructor as a benefit or barrier to the student taking another web-based course was asked in each interview. Student responses were:

- "It was definitely a barrier."
- "It definitely has me questioning if I want to enroll in another web-based course."
- "Somewhat of a barrier, I have other life activities to manage. It is difficult when one needs an answer to proceed, and the professor's schedule is unknown. It is a frustrating to have to periodically check my computer, and there is not response."
- "Benefit. More accessible than regular office hours."
- "His responsiveness was a benefit."
- "Since this appears to be the way of the new century, I feel I must develop a new set of skills to be successful in a computer environment, particularly being able to trace the structure of communication lines in web site instructional learning activities (to be able to following the design/structural mapping in order to have responses show appropriately for other students and professor's understanding. Fortunately, I possess keyboarding skills, internet access (purchased my own computer to increase availability of access)."

Instructor's Expectation of Students

A second category that emerged from the data from student - instructor interaction was the instructor's expectation of the students. These experiences were represented by statements such as:

- "The expectations were maybe a little too high considering the nature of the instruction."
- "Given the above concern re: design/response structure of the computer-based course, it was a challenge for a "first-timer"; I lacked experience. The instructor did attempt this concern with an "orientation session".

The expectations of the instructor as a benefit or barrier to the student taking another web-based course were also asked in each interview. The following statements represent the responses to this question.

- "I feel that it was a benefit because I know what is expected from participation in this type of course."
- "This experience can not be used as a barrier, I feel I have no choice when the only way for me to have access to a course is limited to being offered computer-based environment. There is no other option but to take the course, as is "on the Internet".

Instructor Fostered an Environment of Active Participation of Students

Active participation of students is a major tenet of adult learning and training. This factor emerged as one experience that affects the African-American student in a Web-based course. The following statements represent these experiences.

- "Active participation of students was encouraged by utilizing project based learning. (Group project and case study requiring the student to interact with others in the field)."
- "The instructor was actively involved in participating in the group forums as a part of learning."
- "It was encouraged but didn't necessarily take place."

- "The instructor stated for the students to respond with questions posting them to the forum for review."
- "Online interaction was strongly encouraged."

Conclusions

This study represents only a small step towards a more comprehensive understanding of African-American students and the impact of technology and education. Although the small sample size does not warrant generalizations, it is evident that the experiences of African-American students participating web-based instruction can be affected by their interactions with instructors. It is this authors viewpoint that although African-American students have progressed in terms of education, technology and the implications and factors that go along with it, technology may continue to hinder African-American students in the future from being included in web-based courses.

This study does not show that the findings are unique to African-American students. The experiences reported by African-American students could be experienced by students of other races or ethnic backgrounds. Hence, validation through a comparative study with students of other ethnic and racial groups would go far to enhance the findings.

Implications for Practice and Research

The current study assists in the identification of experiences of African-American students enrolled a web-based course. Identifying such experiences surrounding accessibility, responsiveness, instructor expectations, and active participation, might aid in the design, development, and delivery of online instruction. Because African-American students come to the web-based learning environment with factors stacked against them, successfully completing a course in this medium can be even a more difficult and stressful experience. This information may aid faculty who teach via the Internet by identifying difficulties in web-based courses that may contribute to course completion rates for African-American students.

This study has implications for future research in several areas. First, similar research should be conducted with other web-based courses in different disciplines and different institutions to determine if these experiences found in this study are perceived throughout other African-American students enrolled in web-based courses. Second, research implications may also exist in the design of web-based instruction to serve the needs of all students. Research focusing on faculty and their ability to teach effectively in an online environment is major implication for research. This implication is of extreme importance because of the increasing number of courses being converted from face-to face to online environments, particularly in higher education HRD programs. Finally, this research also has implication for future research in Afriean-American student retention and attrition, and the extent to which technology and the instructor in a web-based environment may add to student retention in online educational programs.

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Looking at the Literature on Workplace Democracy in Latin America: Factors in Favor and Against it

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This paper discusses some of the issues related to workplace democracy in Latin America, a clearly neglected area in the field of human resource development. It is the brief summary of a non-exhaustive review of the literature on workplace democracy in the region. The author identifies six of the most salient issues for further research in the area of workplace democracy in Latin America. An ample bibliography on the topic is available upon request.

Keywords: Workplace Democracy, Organizational Decentralization, Latin America

Introduction

Even a brief look at the literature would suggest that the subject of workplace democracy seems to be a neglected area in the study of Latin America. Much has been investigated and published about the transition from authoritarian rule to political democracy in the region, but except for a few studies scattered in several countries, little is usually published about the ways in which that transition, if any, manifests itself in the context of work organizations. The purpose of this paper is to explore this neglected phenomenon in the region through a brief review of the literature.

In the preface of her book on work democratization in Cuba, Linda Fuller (1992) states "I...wonder if people had ever challenged the pervasive absence of democracy at work...I began to question how social thinkers had resolved the striking contradiction between the widespread and passionate support for the idea and practice of democracy in the political realm and the authoritarian and hierarchical arrangements at work, and found that they had not..." This paper is aimed at calling the attention of scholars and practitioners in human resource development to this phenomenon that has been called "workplace democracy," in the context of the Latin American culture at large.

The way one defines "workplace democracy" profoundly influences the manner in which one perceives the phenomenon. Political scientists help to clarify the concept of democracy in the political realm, which in turn helps organizational-behavior scientists to clarify the concept of democracy in the workplace. According to Clegg (1983, p.3), "democracy is often regarded as the process whereby the concentration of political power is dispersed and the quantity of participation in political life is increased." In the context of work organizations, democracy can be defined in similar terms as above. Clegg contends that "employee participation schemes [in decision making] are widely regarded as the means whereby a more equal distribution of power in organizations may be achieved. Such a process would represent a democratization of work" (1983, p.3).

With this non-exhaustive literature review, the author wanted to explore the understanding of the concept of workplace democracy among those who write about the phenomenon in Latin America, as well as the factors that help/hinder workplace democracy experiments in the region. The author accessed several databases at his disposal, such as ERIC, Infotrack, Academic Search Elite, and others. The most relevant source used was the Handbook of Latin American Studies Online (Library of Congress). The oldest item referred to in this paper was published in 1963. The newest ones in 2000. What follows is a brief summary of the findings from the literature review. The author had to follow the eight-page limitation imposed by AHRD. The original document consisted of a body of 30 pages and a reference list of 79 items. The reference list at the end of this paper only covers up to the letter "o" due to space limitations. The rest of it is available upon request.

Looking at the Literature: The Scope of Workplace Democracy

The field of workplace democracy encompasses a wide variety of employee's participation schemes, with the purpose of spreading organizational influence/authority, actual control, and power of different sources among different levels of the

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management hierarchy and rank-and-file employees. The field, as stated by Heller (1984, p. xxxv) "stretches from interests and influence of employees at various levels." This wide spectrum of participation schemes makes the participative management and employee involvement, to industrial democracy and self-management...the term is meant to describe a variety of interpersonal and/or structural arrangements which link organizational decision-making to the phenomenon more difficult to understand and complicates its study. Workplace democracy experiments transcend political systems, are rooted on different organizational theories, produce a wide variety of organizational outcomes, and face a myriad of implementation obstacles from country to country..

Different degrees of workplace democratization experiments have been documented all over the world. A comprehensive list of schemes escapes the space limits of this review. Their denominations, scope, depth of involvement, and organizational context varies widely from place to place. A non-exhaustive list of those most studied and published include: project teams, problem solving groups, cross-functional task forces (Cotton, 1993; Katzenbach & Smith, 1993), advisory-consultative committees, co-determination, collective bargaining, work councils, collectives, (Bayat, 1991; Crouch, 1983; Fuller, 1992), representative participation (Cotton, 1993; Poole, 1986), producer's and consumers' cooperatives (ENDA, 1987; McClintock, 1981; Moscoso, 1987; Schneider, 1986; Scurrah & Podesta, 1986), government decentralization projects (Caravedo, 1986; Ickis, De Jesus, & Maru, 1986; Liboreiro, 1986), quality of working life experiments (Cotton, 1993), quality circles (Cotton, 1993; Gaitan, Davila, & Zarruk, 1985; Weis, 1994). Other work democracy experiments include gain-sharing schemes (Cotton, 1993; Orsburn, Moran, Musselwhite, Zenger, 1990; Schuster, 1983), self-directed work teams (Beekum, 1989; Cummings, 1978; Fisher, 1993; Manz & Sims, 1993; Miller, 1975; Orsburn, Moran, Musselwhite, Zenger, 1990; Wellins, Byham, & Wilson, 1991), worker self-management (Barrera, 1981; Garson, 1977; Sacks, 1983), employee ownership (Cotton, 1993; Scurrah & Podesta, 1986), total quality management (Dean & Evans, 1994; Deming, 1986; Moguel, 1993; Trejos, 1995; Weis, 1994), self-managed indigenous communities (Bedoya, 1987; Putterman, 1984), and multiple forms of neighborhood grass-roots organizations that engage in mutual help for work (ENDA, 1987). The literature cited above includes experiments with workplace democracy in all continents, regardless of the political system in place in each country.

The organizational theories behind the push for workplace democracy vary according to the type of scheme implemented, the degree of employee involvement, and the purpose sought with the participation scheme. The theoretical foundation for the implementation of worker-managed participation schemes can be traced back to the old quest for increasing workers' control in the work place (Scurrah & Podesta, 1986); while other forms of participation that do not require redistribution of ownership owe their theoretical basis to several contemporary management theories, such as sociotechnical systems (Beekum, 1989; Cummings, 1978; Miller, 1975), leadership substitute theory (Kerr & Jermier, 1978), social learning and cognition (Bandura, 1986; Manz & Sims, 1993; Sims & Lorenzi, 1992), and followership theories (Kelley, 1992; Weiss, 1996).

The implementation of a wide range of employee participation schemes at work has been associated with important organizational outcomes all over the world. Some of the outcomes with which they have been associated include: increased employee productivity (Cotton, 1993; Gaitan, Davila, & Zarruk, 1985; Miller, 1975; Wall, Kemp, Jackson, & Clegg, 1986; Weiss, 1994), governmental efficiency (Ickis, De Jesus, Maru, 1986), employee commitment (Barrera, 1981; Tarrab & D'Aragon, 1986), production efficiency (Caravedo, 1986; Sacks, 1983), job satisfaction (Cotton, 1993; Tarrab & D'Aragon, 1986; Wall, Kemp, Jackson, & Clegg, 1986), and a difficult-to-measure sense of organizational synergy (Adizes, 1971; Cotton, 1993; Katzenbach & Smith, 1993; Robbins & Finley, 1995; Schaupp, 1978; Scholtes, 1988). All these outcomes are of a positive nature for both the organization and the employees involved.

Obviously, workplace democracy has also been associated with operational problems, failures, and numerous obstacles which are inherent to each participation scheme (see Adizes, 1971; Barrera, 1981; Bedoya, 1987; Cotton, 1993; De Castro, 1988; ENDA, 1987; Gaitan et al., 1985; Katzenbach & Smith, 1993; Kras, 1994; Liboreiro, 1986; McClintock, Podesta, and Scurrah, 1984; Moscoso, 1987; Ortega, 1985; Putterman, 1984; Robbins & Finley, 1995; Schaupp, 1978; Scholtes, 1988; Scurrah & Podesta, 1986; Weis, 1994; and others). In Latin America, participation schemes face serious implementation difficulties derived from the nature of the region's capitalist development (in most cases), state control over the production means (in others), and the lack of a self-management culture in general. For example, De Castro (1988) stresses that several participation schemes have failed in Brazil because of the tutelage model of labor relations, employer control strategies in the workplace, and resistance from unions. Lack of experience with quality circles have posed difficulties to the implementation of that approach in Colombia (Gaitan, Davila, & Zarruk, 1985; Weis, 1994). The "traditional managerial culture" in Mexico, according to Kras (1994), makes the transition to "modern" management (as she sees it) more difficult.

By the same token, self-management experiments in Latin America face several other types of operational difficulties (Bedoya, 1987; ENDA, 1987; Iturraspe, 1986; Liboreiro, 1986; McClintock, Podesta, and Scurrah, 1984; Ortega, 1985; Scurrah & Podesta, 1986). As stated by Moscoso (1987) in his account of the struggle of a workers' cooperative in Ecuador, the road to self-management is a difficult path. Moscoso explains in plain "latino" Spanish how "autogestión" [self-management] in Ecuador encounters obstacles of a psychological, economical, political, technological and bureaucratic nature, that could well be the case of most countries in Latin America.

Factors in Favor and Against Workplace Democracy in Latin America

In the context of the Latin American managerial culture, there are certain factors that favor workplace democracy, and others that hinder it. Among those that enhance it are the collectivistic nature of the culture, extended family arrangements, the sense of solidarity present in the culture, some aspects of technology transfer from more developed countries, and the advent of democratic developments in the political context. Among the ones that hamper participation are the high concentration of power in organizations of different nature in the region and an overall weak self-management culture within work organizations.

The dimension individualism-collectivism has been used to compare different clusters of countries in work-related variables (Hofstede, 1980; Hofstede, 1983). The cluster of Latin American countries studied by Jackofsky et al. (1988), Ronan & Shenkar (1985), and Ronen & Kranut (1997), scored high in collectivism and low in individualism. In collectivistic societies, people see their organizations as family, the organizations defend their employees interests, organizational practices are based on loyalty, sense of duty, and group participation. This collectivistic tendency in the Latin American culture in general, as it extends to the work place, helps the prospects for workplace democracy. The extent to which this cultural asset has been used by work leaders to enhance workplace democracy is not clear.

The drive for political democracy that is sweeping away old authoritarian regimes in Latin America is also a factor in favor of workplace democracy. The transition from authoritarian rule to political democracy in the region has been amply documented in the political science literature (see Malloy & Seligson, 1987; O'Donnel, Schmitter & Whitehead, 1986; among many others). It has taken place during the last 30 years and has produced strengthening of the civic society, electoral reforms, and provided for more accountability in public administration.

Although the forces that prompt changes in the political arena may or may not be the same that foster changes in work organizations, changes in the political arena do influence democracy in work organizations. The similarities between political and managerial cultures pointed out before give hope to the belief that as more progress is made in the democratization of politics in the region, more experimentation with workplace democracy can be expected.

As mentioned before, one of the most relevant stumbling blocks to workplace democracy is the high concentration of power in work organizations. This tendency has been suggested in several studies that have included Latin American countries (Fuller, 1992; Hofstede, 1983; Jackofsky et al., 1988; Otalora-Bay, 1986; Ronan & Shenkar, 1985). Hofstede's study (1980) identified as "power distant" several countries in the region. Hofstede defines power distance as the preferred degree of power inequality between two individuals. In countries with high power distance scores, power holders are entitled to privileges, and the social norm is for clear and strong superior-subordinate relationships. In countries with low power distance scores, the norm is for more equality and sharing of power. Weiss (1996, p.191) says that "high power distance societies and members believe the boss is right because he or she is the boss...less powerful members of society accept the unequal distribution of resources and power in society." According to Hofstede (1980), power distance norms are related to the reactions of individuals to the hierarchical power structure and to authority in organizations. The author believes that this is the single most important hindrance to workplace democracy in Latin America.

To be more precise regarding the effects of a weak self-management culture at work in Latin America, let's take a look at the different types of work organizations that are typically found in the region. For the sake of manageability, the work-organization taxonomy developed by Jorgensen, Hafsi, & Kiggundu (1986) will be used for this analysis. Regardless of size and sectors where they operate, Jorgensen et al.(1986) identified four (4) basic types of work organizations in developing countries: (a) government and state-owned enterprises, (b) the entrepreneurial family-owned firm, (c) the industrial cluster, and (d) the multinational subsidiary. The author will add a fifth type: the non-governmental organization-NGO. The NGOs are a type of organizational creature that has spread all over the developing world as governments have failed to provide basic services to the population. Like multinational corporations, NGOs sometimes bridge the transfer of technology and managerial know-how between developed and less developed countries.

Throughout history, "government institutions and state-owned enterprises," have shown a highly hierarchal structure due to, in part, their heritage from the military and the church. According to Jorgensen et al. (1986, p.429), they most of the time "emphasize political survival rather than effectiveness and efficiency." This emphasis sometimes gets in the way of promoting workplace democracy. In many cases, organizational practices such as patronage and nepotism cause them to lose interest in measures of performance, productivity and other effectiveness indicators that usually accompany the implementation of work democracy schemes. Some progress toward greater decentralization and accountability is observed in the public sector in Latin America lately. This trend has accompanied the transition to democracy taking place in the political realm in the region. The work of some global organizations (such as the technical institutions of the United Nations), regional organizations (such as Organization of American States), and technical-support networks (such as the Latin American Center for Development Administration-CLAD) has helped to encourage this drive toward more decentralization of governments.

"Private businesses" are the most common types of work organizations in Latin America both formal and informal. Again, for the sake of manageability, we will refer to formal business organizations in this paper. Informal businesses tend to show very similar characteristics regarding power orientation in Latin America; but their study in terms of organizational behavior is very limited. Jorgensen et al. (1986) classify formal business organizations in two types: (a) entrepreneurial family-owned, and (b) industrial cluster. These two types of business organizations show different dynamics regarding their proclivity to engage in work democracy schemes. Both types face very unique sets of challenges for decentralizing decision making, due to their origin, size, and structure. The other unique challenge alludes to their varying degrees of access to technology and managerial talent.

In the case of the "entrepreneurial family-owned organization," the entrepreneur is the owner and manager, playing different roles in the community. This type of organization diversifies risk by engaging in several businesses at once, linked by family ties. For that reason, Jorgensen et al. (1986) called it "the octopus." This type of work organization is usually characterized by a lack of management talent. Their cadre of middle managers and front-line supervisors emerges primarily through nepotic practices and is usually developed from within the organization with very little exposure to formal schooling and contemporary management education and technology. Kras (1994) studied this type of organization in Mexico and concluded that the changes in management philosophy and practice have to be drastic, in order for the owners to embrace self-leadership and engage in decentralization, participation, and self-management schemes.

In the "industrial cluster," the control shifts from family funding to professional managers. In Weberian terms, this is where the control of bureaucrats and technocrats takes hold, as documented by Weis (1994) in her study of industrial organizations in Colombia. This type of business organization is typically well equipped in terms of managerial talent. Staffed at the upper and middle management levels by college graduates and other professionals with graduate studies either in their own countries or abroad, they resemble very much their counterparts in developed countries. Following the footsteps of the total-quality-customer-focus approaches in the United States, Europe, and Japan, they pay close attention to the notion of "customer empowerment." The extent to which this interest in customer empowerment is translated into "employee empowerment" is not totally clear. Their size, competitiveness, and interest in efficiency make them the most likely candidate for experimenting with work democracy schemes.

Jorgensen et al. (1986) referred to the "multinational subsidiary" as "the truncated organization" because many of the logistical functions are performed at the parent firm, while the operating core is located in the host country. Studying multinational corporations in the United States, Germany, and Japan, Negandhi (1984) found that global rationalization practices were creating higher levels of centralization in decision-making. According to Brooke (1983), powerful commercial pressures to centralization make the multinational firm an unlikely candidate for industrial democracy. On the other hand, the growing trend for multinational firms to ascribe themselves to what Beamish, Morrison, & Rosenzweig (1997) called "geocentrism" in integrating people from different regions and countries, favors their engagement in participatory schemes. The other force prompting multinational subsidiaries to experiment with organizational decentralization is their symbolically-assigned role as vehicle for technology transfer from the developed to the developing world. Technology transfer includes management technology. Since most of the decentralization schemes that workplace democracy encompasses have been, if not developed from ground zero, then at least perfected in the developed world, multinational subsidiaries are in a very good position to promote it.

"Non-governmental organizations" (NGOs) are very similar to government institutions in their programming and the nature of the services they provide to communities in developing countries. But they are radically different both in terms of their size and structure, and in terms of their willingness to not only decentralize themselves operatively, but also to involve their own client population in their internal decision-making process. They tend to be interested in measures of performance effectiveness to be accountable to donors in the developed world; and, therefore, show some willingness to experiment with participation schemes. Of course, their small size and their ties to donors in the developed world facilitate experimentation with workplace democracy.

Summary of Recommendations For Future Research

The preliminary review of the literature on workplace democracy in Latin America left the author with more questions than answers. The following paragraphs address some of the issues that the author thinks deserve further exploration in the immediate future. Some of them reflect the need for future research with potential practical applications to the world of work. Others are further questions for exploration of a theoretical nature.

1. There is a need for studying the magnitude of work democracy experiments in the region. For example, what is the relationship between political participation in general and employee participation at work? Does political democracy influence workplace democracy and/or vice-versa? How to explain the fact that organizations (and management practices) seem to remain authoritarian in nature, while societies are undergoing transformations in the direction of political democracy? Since the ultimate aspiration of political democracy is total participation of the members of the society for redistribution of power (that is, the existence of a politically participant citizenry), to what extent does that "participant citizenry" express itself in work organizations in Latin America?

2. Researchers in Latin America would benefit from studying workplace democracy regardless of ideological preferences, to capture the full spectrum of possible outcomes of the phenomenon. In his foreword to Volume II of the International Yearbook of Organizational Democracy, Heller (In Wilper and Sorge, 1984, p.xxxv) stated that the term "organizational democracy is not intended to imply an analogy with the concept of parliamentary or political democracy. This means that forms of organizational democracy can exist in places that do not have political democracy, as defined in most Western countries. At the same time, it is compatible with individual ownership of the means of production." This assertion might help to explain the existence of work democracy schemes in different political systems such as those described by Fuller (1992) in Cuba, the formidable advancement of self-directed work teams in major corporations in the United States (Beekum, 1989; Cummings, 1978; Fisher, 1993; Manz & Sims, 1993; Miller, 1975; Orsburn, Moran, Musselwhite, Zenger, 1990; Wellins, Byham, & Wilson, 1991), and some other countries in the middle of the political spectrum around the world (Bayat, 1991).

3. As stated at the beginning of this paper, the way one defines "workplace democracy" will determine what is studied, and what is left out of inquiry. If workplace democracy is defined narrowly within the confines of a particular political world view, the theoretical perspectives and methodological tools provided by that paradigm may well filter the information available that does not fit it. The author believes that the study of workplace democracy in Latin America suffers from this paradigm disease; that is, most of the published literature is confined to investigations of employee participation schemes that involve redistribution of ownership (see Barrera, 1981; Bayat, 1991; Espinosa & Zimbalist, 1978; Fuller, 1992; Iturraspe, 1985; McClintock, 1981; McClintock, Podesta & Scurrah, 1984; Moscoso, 1987; Scurrah & Podesta, 1986; Schneider, 1986; Stephens, 1980). This strong emphasis on studying mostly self-management experiences that imply redistribution of ownership neglects the vast array of experiences that might have been implemented in several places without redistribution of ownership, which go understudied or at least under published, to the best of the author's knowledge. This bias misleads people to believe that only when employees own the business or control the production means is there self-management. Because of this bias, one does not know of other participation schemes that might have been successful, such as the cases that Gaitan et al. (1985) and Weis (1994) documented in Colombia's quality circles and Osland, De Franco, and Osland (1999) refer to elsewhere in the region. Furthermore, in some cases the term "autogestion" [self-management] has been misconstrued to reach the connotation of a bad word ["mala palabra"], as Scurrah & Podesta (1986, p.17) reported in the case of Nicaragua. In regards to this issue it is pertinent to wonder whether the lack of publications about other participation schemes in Latin America (that do not imply redistribution of ownership) is a reflection of the lack of broader-scope studies, or a reflection of the non-existence of these other participation schemes in the region.

4. Given the features of the Latin American managerial culture (not discussed here for lack of space), the process of "learning self-direction" deserves to be studied carefully. As Gaitan et al. (1985) gleaned from the Colombian experiments with quality circles, learning to work in participative schemes does not follow a "predetermined path" (p.45); because the specific tools to apply will vary according to the situation. Regarding this learning process it is pertinent to address several questions: What factors (social, cultural, psychological, etc.) affect people's participation at work in Latin America? What does it take to learn self-management at the level of individuals, organizations, and countries? What are the self-direction hindrances, and ways of addressing them? Practitioners of organizational behavior in Latin America need basic research in these areas to be able to contribute to the democratization of the workplace.

5. Another issue deserving further study is whether regional differences within the same country have any impact on the way people accept and get involved in participatory ventures. For example, as the author collected data for the evaluation of a management development program in an NGO in Ecuador during the summer of 1997, he noticed that managers interviewed in the coastal region (Manabi) were successfully engaged in self-directed management teams, while managers in La Sierra region (Bolivar) were facing serious difficulties in implementing the team management scheme. Similarly, a self-directed management team was operating smoothly in Santa Cruz (Bolivia) while the same scheme faced several implementation difficulties in Tarija, within the same country. By the same token, while in El Salvador and Honduras the same NGO has implemented self-directed work teams, it has not implemented them in the Dominican

Republic. Kras (1994) observed the same trend in her study of Mexican management, as she noticed that the industrial north tends to be more prone to modernizing management practices than the southern part of the country. The question here is: are there cultural characteristics that explain regional differences in the proclivity of people to engage in self-management ventures?

6. Finally, given the push toward greater diversity in U.S. work organizations, it is pertinent to wonder what are the implications of the evolution or lack of evolution of the Latin American managerial culture to favor or limit workplace democracy?

The author hopes that further research will shed light on these and other issues related to decentralization of power and people's participation schemes in work organizations.

How This Research Contributes to New Knowledge in HRD

The ways in which a nation's political culture impacts workplace behavior is another phenomenon scarcely studied around the world and, in particular, in Latin America (Montesino, 2000a). This is one of the most relevant contributions of this literature review to the HRD field. According to Almond and Verba (1963, p.14), "the political culture of a nation is the particular distribution of patterns of orientation toward political objects among the members of the nation." The term managerial culture is used here in the same sense; that is, the set of work practices by managers and employees (two very special kinds of leaders and followers) that are a reflection of philosophical orientations, values, and beliefs about work behavior and the role of the self in the context of the work organization.

Particular preferences for power holding in the region have a tremendous impact on the management development initiatives undertaken. Latin America is not a homogeneous region regarding cultural characteristics and behaviors. But, according to some (Hofstede, 1983; Jackofsky, Slocum, & McQuaid, 1988; Ronan & Shenkar, 1985; Veliz, 1980), among the many commonalities, "power holding" stands out as one the organizational behaviors in which most people from the different regions of Latin America tend to act alike. Several scholars even tend to suggest that the region's political and managerial cultures over-emphasize ways of power holding that get in the way of democratic development (Avila, 1980; Harrison, 1985; Veliz, 1980; Wiarda, 1974). Some researchers (Booth & Seligson, 1984; Farris & Butterfield, 1972; Montesino, 1998; Montesino, 2000a: Montesino, 2000b) seem to be skeptical about this alleged inherent authoritarianism. Others (Todaro, 1974; Tulchin, 1983) challenge that conclusion on methodological grounds. Regardless of what corner of the debate you support, the implications of power orientations at work for HRD are vast.

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Toward a New HRD Organization Model

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Increased economic growth in Asian and European markets, fueled by European incorporation of former state-controlled economies and by development of Asian financial infrastructures, will one day place the Americas at a competitive disadvantage unless a new international organization model emerges that can better harness labor to strengthen the hemispheric economic engine. HRD can lead emergence of such a model while furthering development of an independent workforce, attending to greater needs for self-directed training.

Keywords: Organization Structure, Organization Model, NAFTA Structure

HRD practitioners who are committed to developing and unleashing human potential through both organization development (OD) and through personnel training and development (T & D) might consider uniting the two modalities in a new organizational structure to be the best response to long-term hemispheric political and economic needs. It is argued here that furthering the long-term capability of the Americas to compete on an equal basis with the future European Union and Pacific Rim communities will require a new organization model that can facilitate development of and harness an emerging independent workforce (Beck, 2000).

This call for HRD to develop a new model begins with its most immediate relevance for the Western Hemisphere, but also looks to the future where such a structure will strengthen labor capability wherever OD leads economic and social development. To open the debate, the following review first explores how NAFTA might become a pan-hemispheric economic engine, and then examines how current organization modeling can contribute to development of a new organization structure.

Why the Americas Need a New Organization model

Agreements between the US, Canada, and Mexico in 1993 formed the North American Free Trade Alliance (NAFTA) in recognition of commerce among the countries and the common desire to stimulate development and economic growth across shared borders. The borders remain closed, however, to the general movement of labor that might accelerate economic development. An objective of the newly elected administration in Mexico is to pressure the US and Canada so that borders are opened much like they are to citizens of the European Union (EU) (Fox, par. 13).

Against a background of individual country laws, customs, and political practices, transnational corporations have established branches, joint ventures, and ownership positions, sometimes interacting with cultures having profoundly different business behaviors. Advances in communication and transportation have widened the portals of international trade, encouraging small and medium-sized businesses to join larger compatriots in the international business sphere.

Recent challenges in Asian financial centers demonstrate the interdependence of economic forces in that marketplace. Equally evident was the *relative* independence of the US economy from those same financial forces. As the Asian financial community addresses fundamental issues, area development should eventually resume prior growth, restoring Pacific_Rim status as a communal economic force, more solidly grounded than before. A similar force will emerge in a unified Europe that includes countries once dominated by state-controlled economies. The EU expansion eastward gained momentum during December, 2000 EU meetings where new membership conditions for a dozen European nations were agreed upon. Swedish Prime Minister Pearson declared, "this is a big day for Europe . . . we are ready for enlargement" (Star Tribune, December 11). An expanded EU capitalist machine will rival the Pacific force as well as that of the Americas for trade supremacy. The Americas might need the unifying force of an enlarged NAFTA to compete on equal terms with the other two communities.

The Americas lack the common currency and history of political diversity that characterize the new

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European capitalism. As Europe effectively resolves its current issues, it will continue to make inroads into markets previously dominated by US interests, including the Mercosur counties led by Argentina, Paraguay, and Uruguay. Some fundamental issues in cross-border agreements have been painfully addressed through the first NAFTA agreements, and judicial oversight agreements continue to examine common labor concerns. The greatest barriers to realizing the economic potential of hemispheric development are political and systemic, where national interests continue to thwart benefits of cooperation. Isolated political agreements might overcome some political barriers, but solutions to systemic barriers will require a closer examination of the ways companies do business across hemispheric borders. Some organization model components are better suited to extend current regional cooperative ventures. Identifying and combining some of those components might lead to a hybrid model capable of reconciling marked differences in country economies as well as labor markets subject to different cultural norms and educational systems. Organization systems that can respond to project needs throughout the Americas by accessing expertise wherever it resides will help meet production needs, while hemispheric politics should respond to the same realities that are overcoming Eastern European political intransigence.

Method

This inquiry eschews the common research design where a problem is identified and a problem-solving analysis and solutions presented. Instead, it is designed to create a dialogue based upon principles of *appreciative inquiry (AI)* that rely on generative rather than adaptive learning philosophy (Barrett, par. 5). Zemke (1999) considers AI as an "alternative to problem-oriented models . . . a new approach to OD that focuses on what works rather than what doesn't" (par. 1-2). AI was proposed by Cooperrider at Case Western Reserve; it is described as an innovative process for organization change that moves from "deficits to positive possibilities" (Schau, 1998, par. 1).

Where adaptive learning focuses on incremental improvement to existing services, products, and markets, generative learning looks to "continuous experimentation, systemic rather than fragmented thinking, and a willingness to think outside the accepted limitations of a problem" (Barrett, par. 6). Lawton (1993) makes a further distinction, between "convergent thinking" and "divergent thinking." Convergent thinking refers to "incremental modifications" made for improvement. Divergent thinking, on the other hand, refers to the ultimate outcomes of our industry (p. 80). The inquiry question treated here defines movement "toward a new HRD organization model" as an opportunistic outcome rather than the closing of a productivity gap so as to conform to requirements.

The inquiry proceeds with a review of the literature about organization models, with the purpose of identifying model elements that might contribute to worker mobility and effectiveness throughout the hemisphere. Employment should be supported by legal, political, and social institutions that empower rather than constrain, whether knowledge work or manual labor. It is hoped that the inquiry's discussions will generate further scholarly dialogue around the question. The literature selected for review includes articles that examine popular organization models, first, and then analyses of political, legal, and social conditions that affect NAFTA and international trade.

Assumptions

This inquiry assumes that certain political and economic conditions will prevail, and that some training issues will take on added significance. First, a hemispheric alliance will continue to evolve, providing a coherent market competitor in answer to European and Asian alliances. For example, Mercosur members have shown a willingness to join NAFTA if given the opportunity.

A hybrid organization model will improve upon current organizations in hemispheric commerce that have not furthered the interests of workers who are only now learning how to compete in a new information age. Consistency in training and portability of benefits are critical issues for the hemispheric future, and their provision may also represent an ethical underpinning of the HRD profession. As computer access to hemispheric markets matches opportunities with workers, their access vehicle for employment will depend on cross-cultural credentialing as well as on the structural means workers have of joining an international work force.

Training for a hemispheric workforce increasingly made up of contingent employees will raise new issues for HRD, since traditional corporate in-house training programs have been subject to the same downsizing and reengineering forces that have surfaced as a wide-spread corporate activity. The fluid global marketplace of the foreseeable future will most likely see an increasing reliance on economies of scale that direct more of the financial costs of training and education on to workers. This assumption might be revised where organizations recognize and initiate training programs to satisfy critical international commercial needs. Cross-frontier credentialing might require greater standardization in competency-based training and education system models, patterned after standards developed in emergent international HRD programs and philosophies. The new organization model must coordinate training and credentialing tasks, perhaps through a NAFTA-style division charged with overseeing hemispheric standards in these areas. A similar group might emerge to define and supervise cross-border benefits and other labor standards. Such groups may combine public and private sponsorship at the same time they offer workers entry to Pan-American job assignments.

Current Organization Models

To help conceptualize a new system to further hemispheric capabilities, this section looks at some organization models that characterize international commerce as well as examining political relationships and legal considerations that would impact a new organization model.

Organization Structure

The following organization models are most likely to contribute to a new structure that maximizes international labor access to work and effectiveness: the matrix, heterarchy, diamond, broker, and MNC subsidiary.

Matrix. The matrix has been a popular model since the 1960s, although it has been attacked in recent years. Bartlett and Ghoshal (1990) argue, however, that the matrix concept remains a valid way to meet organization needs, since the strategic reality for most companies is that "both their business and their environment really were more complex" (p.139). The matrix organization combines elements of both functional and project team organizations, imposing a lateral program management on the traditional hierarchical structure. The advantages of the matrix organization were listed by Cummings and Worley (1993), and included making specialized, functional knowledge available to all projects while providing great flexibility in harnessing human resources. The matrix structure also allows adaptation to environmental changes by altering emphasis according to project or function. The principal drawback to the matrix concept is in its multiple reporting line, a violation of the "unity of command" principle. Most other drawbacks of the model are disadvantages of a political rather than structural nature. Larson and Gobeli (1987) see the matrix concept as a continuum between the traditional functional hierarchy and the project team concept. The matrix organization might be especially suited for the new hemispheric workforce. The vertical "silos" that define the functional side of the matrix organization can also include a "silo" that represents the contingent workforce available to meet individual project needs. The project-centered nature of the matrix structure allows organizations to recruit people with skills needed for specific international projects. While about one-sixth of the domestic US workforce is currently employed in contingent labor, much of which is highly skilled in scarce technical disciplines, corporations are increasingly tapping an international workforce to meet interdependent trade and manufacturing needs.

Heterarchy. Solvell and Zander (1995) propose another organization structure when they examine the dynamic multinational enterprise (MNE). They compare the relationship of the home base corporation to its subsidiaries and define a *heterarchical* MNE, differing from the limited home-base model where the typical MNE has its core functions and its core manufacturing. The heterarchical model has many centers of different kinds to better deal with the increasingly complex international marketplace. Solvell and Zander believe that advantages in the heterarchical MNE include both low-cost or skilled labor provided in the host country as well as access to advanced research institutions. They compare models proposed over the years, such as the geocentric firm, the multifocal firm, the diversified multinational corporation, the transnational firm, the horizontal firm, and the heterarchical MNE, and find a common theme among them where the MNE builds more complex organizational structures and management processes that can combine global integration with location differentiation. The heterarchical model has different kinds of centers: traditional headquarters functions are geographically dispersed where any subsidiary can generate new knowledge. Each center assumes its own leading role in the creation of new technologies. Hence, a business segment may have a different home base than headquarters, and changes may occur anyplace among different units. A foundational concept of the heterarchical model is that *information about the whole is stored in each part of the organization.* By joining location with particular demand characteristics and allowing functional activities to be carried out anywhere in the world, the heterarchical model "accentuates the trade-off between the geographical demand and functional dimensions that would represent shifts in the traditional matrix structure." (1995). Solvell and Zander raise important questions for HRD, including a central issue of how a heterarchical firm can build a corporate culture strong enough to overshadow the complexity of national cultures.

Core activities, including decision-making, R & D, and core manufacturing operations, are mostly performed at the home base, while subsidiaries carry out peripheral activities in sales, service, and local adaptations. The MNE would "selectively tap" subsidiary resources where technological innovations or advances were developed abroad. A multi-home based organization has emerged, where the MNE taps into specialized labor pools that could also include a contingent workforce, advanced customers, and close competition with leading rivals.

Diamond. Solvell and Zander also look at a "diamond" organization model; this model, however, already corresponds to a polycentric concept of organizations based on regions or nations rather than on a global environment. They review a "Hollywood Paradox," a localization process said to emerge where a geographic area develops an overwhelming advantage in skills or expertise that becomes a cluster of core functions far beyond that of the competition. Neither concept appears to contribute much to the organizational need identified here.

MNC Subsidiary. Birkinshaw (1995) proposes three types of international organization subsidiaries from the literature: *world mandate*, *specialized contributor*, and *local implementer*. Birkinshaw compared structural characteristics of each against the principles that define hierarchical and heterarchical multinational models. He held that "the relevant facets of the corporate strategy and the external environment are largely built in to the subsidiary's structural context." He defines the three subsidiaries as follows:

Local Implementer: limited geography, single country, with constrained products.

Specialized Contributor: expertise in activities closely coordinated with activities of other subsidiaries; highly interdependent with the other subsidiaries.

World Mandate: develops and implements strategy with HQ, but has worldwide or regional charge of product line or entire business; has unconstrained product scope; activities are integrated worldwide but managed from the subsidiary rather than home office.

Birkinshaw claims that the hierarchical model cannot reflect the complexity of the MNC with peripheral operations that eventually develop their own resources and expertise, and thereby reduce their dependency on the parent company. A subsidiary released from tight control combines the MNC theoretical structures of transnational and horizontal organization into a heterarchy that is distinguished from the hierarchy by dispersing resources, management, and decision-making throughout the organization. High autonomy among peripheral units might facilitate the harnessing of independent or contingent labor to meet project requirements unique to a local context.

Broker. The broker organization serves as a necessary intermediary for contingent labor. The networking associated with that enterprise is more difficult to maintain, however, and likely represents a developmental phase for emerging members of the independent workforce rather than a final direct association with global employment.

Organization Structure Summary

In a hierarchy, divisions are organized around specific products or markets. The heterarchy model further develops expertise in divisions or subsidiaries so other entities of the MNC may draw on its specialized capabilities. Such expertise might include the contingent labor resource much as a "peripheral silo" might attach to the traditional matrix model. HRD could facilitate development of a hybrid organization model that combines elements of the heterarchy, the matrix organization, subsidiary concepts, and broker mechanism. A heterarchical organization might be the best mechanism to service corporate home and overseas branches. The matrix model matches functional task authority against a project orientation, with the advantages and shortcomings of both elements. The broker organization has been well-suited to recruiting expertise where projects define employment needs for specific tasks within given timelines. Should a new model combine attributes of the structures reviewed above, it must also address issues of standardized training and portability of benefits in an individual country context, where a combination of economics, education, and labor determine project or corporate success.

Political Relationships

The political ramifications of trade agreements have consequences for economic health, regional stability, and development of social institutions. The following illustrations demonstrate the variations in political responses to commerce, employment, and cross-border wrangling that have accompanied the emergence of NAFTA.

Labor union influence led the US to negotiate side agreements to NAFTA to protect US jobs they believed to be in jeopardy. Barrett (1997) noted that "most of the jobs lost [in the textile industry] since the NAFTA pact took effect . . . have been the victims of technology, not NAFTA, according to the American Textile Manufacturers Institute report on employment levels in the industry" (p. 4). She added that since trade barriers among NAFTA members were lowered, fiber consumption in US mills has increased every year to its highest levels in industry history. Meyers (1998) noted that critics of the pact contended that hundreds of thousands of jobs have been lost due to a surge in Mexican imports. However, he cites University of Minnesota economist Tim Kehoe who said that such claims ignore recent figures that show "Mexico has a balance-of-trade deficit with the US." Ostroff (1997) looked at broader hemispheric politics, and opportunistic neighbors to the south who would prefer to work with NAFTA, but who will not wait indefinitely for the US to extend an invitation. Chile wants to join NAFTA, but has been prevented from doing so due to "US protectionism and labor opposition." As a result of NAFTA, apparel and textile imports from South America have declined, but have risen from Canada. Ostroff believes that the US needs to enlarge NAFTA for those industries to grow internationally. In the meantime, Peru, Chile, and Bolivia are being drawn "toward an economic alliance with the Mercosur countries" to create a nearly pan-continental free-trade zone." Ostroff cites Julia Hughes, from the US Association of Importers of Textiles and Apparel, who sees a "shift of apparel assembly from regions where this business was growing steadily before NAFTA's creation" (1997). Meanwhile, the U.S. has no quotas on Peruvian cotton used for shirting, while Asian suppliers are limited by quotas. If NAFTA does not expand, Ostroff claims that domestic makers will confront South American tariffs of 20 to 25 percent. He fears that a US slow to expand NAFTA will move South American nations to develop their own free-trade agreements, freezing out the US. According to current timetables, Panama will soon join the Andean Community; by 2004 Mexico, Venezuela and Colombia will establish their own free-trade zone; and by 2003 Colombia and Venezuela will join with the Central American Common Market to form a larger free-trade zone. And, there are efforts to create a South American Free Trade Area. Finally, Ostroff contends that Mercosur and Andean representatives have been conspiring to eliminate barriers to the trade of their products in 10 to 14 years, but excluding US goods.

Gibson (1997) analyzes remnants of the Mexican PRI party and Argentinean Peronism to determine how they adapted their populist models to the reality of the new global marketplace. Both regimes modified historical alliances of metropolitan sophisticates and regional traditionalists to incorporate technocratic economics that represent the non-political forces of the free market. Both Mexico and Argentina now embrace a "neoliberalism" that relies on conservative business forces in the metro areas, replacing former exclusive ties with labor unions and the poor with selected groups of successful businesses *and their workers,* appealing to the growing middle classes and elites who had opposed the Peronists and PRI up through the late 1980s. The 2000 elections in Mexico have confirmed Gibson's analysis, as Vicente Fox's party assumed control. Labor rules are changing in both Argentina and Mexico; they no longer guarantee employment and wage levels, reducing labor costs and "neutralizing labor obstacles to marketization." In both countries, new laws now restrict the right to strike, decentralize collective bargaining, limit wage hikes, and make hiring and firing in the private sector more flexible. State-owned enterprises have been sold, eliminating thousands of jobs.

Legal Considerations

International legal practices as well as governmental laws have presented some difficult barriers to expanding the NAFTA concept. The following illustrations point out potentially difficult negotiations to be encountered later on.

Mukherjee (1997) examined recent court rulings and found that a California judge's ruling might have far reaching impact over subsidiaries or agents of US companies abroad. The ruling stated that foreign entities could sue US companies if they could prove gross negligence of conduct, such as human rights violations. Greg Wallace, partner with New York's Kaye Scholer Fierman law firm, asked, "are we seeing the beginning of a human rights standard for companies doing business abroad? This is not about having enough bathrooms or paying minimum wage, this is much more severe, and it revolves around slave trading." The case cited by Mukherjee was in Myanmar, and could represent an expansion of the Alien Tort Claims Act.

Global companies often place their stocks on the exchanges of countries where securities and accounting systems may differ in inventory valuation, principles of revenue recognition, depreciation, good will, consolidation of subsidiaries, currency translation, disclosure requirements, and voluntary loss reserves. For example, Venezuela uses a 20-digit general ledger, rather than the 12-digit practice common throughout the hemisphere.

Pincus and Belohlav point out that every country or geographic region has legislation regulating terms and conditions of employment. A significant human resource responsibility of a multinational is compliance with local employment regulations. An employee hired by a US company and stationed overseas has no legal right under US laws to the same benefits as the company's domestic employees, except where the company violates the antidiscrimination provisions of the Civil Rights Act of 1964. Companies are required to obey local regulations governing benefits to employees employed within a country. In Mexico, the Federal Labor Board and various state boards have been granted jurisdiction over businesses holding federal charters or operating within federal or state zones. Mexican minimum benefits include six paid vacation days, a 25% vacation pay premium, seven paid federal holidays, and fifteen days' salary as a Christmas bonus. Mexican employees are tenured after one year's work, after which they may be dismissed only for specified causes set forth by the Mexican labor law. When a strike is declared, all employees, including management, must strike and must be compensated. Bachman (1997) reviewed Mexican customs regarding child labor. "Under NAFTA, a country that exploits child labor could face millions of dollars in fines; Mexico is the only developing country in NAFTA which has a labor side agreement that makes failure to enforce child labor laws a punishable offense." In the meantime, some Florida farmers worry about competing against Mexican growers who do not face strictly enforced regulations on labor or on the environment. Bachman adds that "most modern Mexican factories are believed to screen out underage workers." Mexico can also avoid fines by showing an attempt to end an offense.

Pincus and Belohlav (1996) take a more global look at business activities, in general. Business abroad requires "an understanding of multinational business laws that include joint ventures; signing contracts with international distributors and agents; establishing branches in host countries; and opening subsidiaries." Some issues companies may face include the following:

- *Direct payment* requires irrevocable letters of credit, otherwise checks may not be honored.
- *Agents* enter into inappropriate contracts, although they remove certain sales risks.
- *Joint ventures* that do not require complete investment, but managerial control may be lost.
- *Branches* maintain central authority and control, but the company may have extra liability.
- *Subsidiaries* remove parent company from liability, but possibly repatriate profits or expropriate property.
- *Licensing* that limits parent firm investment, but removes control over product or service.
- *Acquisitions* that reduce startup costs and maintain goodwill, but most countries restrict foreign investment.

Venezuela restricts foreign ownership to 20% of capital stock in TV and radio broadcasting, in the Spanish language press, and in professional, consulting, and advisory services. Some countries allow additional forms of doing business: in Latin America, a business may operate as a limited liability company or as a company with variable capital, presenting factors that render traditional defenses, such as exercise of due care, unavailable to the manufacturer, often quite different from stricter product liability regulations in the US.

Employment Recruiting and Training Implications for HRD

Talbott (1996) looks at building a global workforce. Applicants who have both international experience and foreign language proficiency are in demand. He suggests that recruitment should concentrate on behavioral traits needed to succeed internationally as well as the technical expertise required for the job. He notes that "most often expatriates are selected from within the corporation" because they already understand the corporate culture. Talbott cites statistics from the American Institute for Foreign Study, where "only 5% of college graduates are proficient in a foreign language, and less than half of business students take a course that's internationally focused" (1996).

The International Journal of Physical Distribution & Logistics Management (1996) suggests that HR professionals looking to do business in Mexico should examine issues beyond the significantly lower labor costs in the country, such as wage and compensation packages, trade unions, training, labor legislation, and cultural differences. The Mexican Federal Labor Law states that employees are entitled to improve their standard of living and productivity through training. Training is mandatory and aims to update or improve employee knowledge, skills and aptitude; to prepare an employee for a new position; to improve safety and prevent accidents; and to improve productivity. Employers and unions must agree on training programs that are then approved and registered by labor authorities.

Montagno (1996) measures the future competitiveness of US firms in their capacity and willingness to provide extensive international training. He suggests that cross-cultural training participants be exposed to experiences in the context of the US cultural environment, where "everyday behavior has cultural clues embedded," and learning to recognize them is critical for cross-cultural understanding.

What of the role of adult education in the future NAFTA vehicle? Jarvis notes that adult education has become more visible throughout the world (1991). Thomas (1991) adds that the "relationship between economic development and adult learning has become relentlessly apparent . . . [with a] continuing need to maintain close functional and intellectual contact between adult education, economics, and politics . . ." (p. 305). Cunningham (1991) argues for including "peace education, sustainable development, and transnational exploitation" in the adult education discourse (p. 375). Is HRD thus challenged to facilitate adult education through the new organization?

The contingent employee might rely on individual skills to personally sell services to client organizations. Adult educators might be able to globally address national development needs by educating adults in skill areas external to particular organizations. Whatever the subject matter, knowledge and skills that make a worker more salable in a self-directed marketplace will further both individual and organization goals (Beck, 2000).

As employees freely contract with organizations, the extent of their commitment will be measured by how well the organization welcomes them and values their services. OD practitioners might help organizations learn how to attract contingent employees and seamlessly incorporate them into the corporate culture and structure.

Dishler would undoubtedly observe in this model that "the commercialization of adult education has arrived" (1991, p. 395). Another might argue that the model replaces the mandatory nature of human resource training with a voluntary model where internet access will create a new tool in workers' hands, linking their specific skill sets and knowledge to opportunities beyond the constraints of national borders.

The new organization model must embrace a philosophy of continuing education as a global contributor to economic development through largely self-directed learning. Organizations can benefit if they also provide structured on-the-job training that a worker can translate into improved skills for a broader marketplace. In this vision, the guiding humanistic values intrinsic to adult education have a natural fit in an HRD large-system model where individual contributions are recognized and highly valued by organizations. Other critical questions remain to be answered: what happens to commitment in the workplace where workers will be gone after a project has ended, and what hemispheric job centers will service this new transient population? And, Can a NAFTA mechanism be created to develop portable insurance and benefit systems that cross national boundaries where multinational companies are not already providing such benefits? A functional element in the new model might be adapted to manage portable packages with a yet to be determined hemispheric benefit banking system.

Findings

This inquiry has identified elements from a number of international organization models that might contribute to a new structure that could facilitate and empower labor availability throughout the Americas. The final goal would extend such a model globally, furthering the development of an emerging, independent workforce. The major contributions of that inquiry so far include the following:

The matrix provides a project team orientation, where resources are identified cross-functionally in an organization. If the organizing principle added another "silo" to its traditional, functional lines, to include a peripheral workforce, only a contingent worker entry point into that outer silo would be lacking.

The heterarchy provides a localized context, structurally accounting for the cultural, political, and social requirements of the host country. The availability of a global resource to the subsidiary further heightens its ability to draw upon resources far beyond its geographic limits. The entry point for independent labor is less clear, although each subsidiary would present a different legal, political, and social context for work.

The broker organization can provide an intermediate step for a more sophisticated, developing workforce.

It was suggested earlier that a parent body might already exist in NAFTA, a division of which could develop and oversee hemispheric standards for credentials, portability of benefits, and other employment mechanism issues. It was not so clear, however, where the self-directed learning that is foundational to an independent workforce might evolve. It was suggested during the discussion about recruitment and training that HRD in its international practice might provide the leadership among corporate and governmental bodies to place the role of continuing education as an important adjunct to any system adopted to further international commerce.

Finally, the legal, social, and cultural differences in the Americas argue for an HRD effort that addresses the politics of organization development, leading the development of resources that heightens the economic vitality and independence of hemispheric neighbors, rather than furthering a foundation that has been considered exploitative of US and Canadian interests.

Conclusion

The new EU currency, the Euro, is meant to symbolize a new era of European cooperation and prosperity. Its volatility against the US dollar, however, illustrates the barriers that yet remain as national structures give way to a communal economic system. HRD can help the US move beyond similar nationalist challenges in the Western hemisphere to long-term economic viability by developing a new organization model better suited to the realities of an increasingly fluid labor market for global commerce. That commerce grows in complexity when the movement of labor is factored into global economics. Economic development is hindered by policies and practices that restrict labor movement according to national boundaries rather than interdependent economic regions. A mechanism that would support the development and circulation of labor to meet regional needs will further the economic health of the Americas in the near future and globally in coming decades, empowering human resources beyond our custom.

Further investigation is needed to determine the adaptability of a new organization model to the EU and to the Pacific Rim, where workers' rights remains an important issue for the international HRD practitioner. This inquiry looks to a future role for international HRD where a growing corporate focus on outsourced and contingent employment can at the same time empower an independent workforce.

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Differences in Priority for Competencies Trained between U.S. and Mexican Trainers

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One of the greatest challenges in the modern world is the knowledge, skills and abilities of the labor market. As a result, the educator and trainer must recognize the importance of having highly trained and qualified personnel. An important commitment of the signing of the free trade agreement (NAFTA) was the collaboration specifically in the educational and professional training fields. This paper examines the differences in competencies for training programs between Mexico and Unites States companies.

Keywords: Training & Development, International Training, Training Competencies

Numerous researchers and professional organizations such as the American Society for Training and Development (ASTD) and the National Society for Performance and Improvement (NSPI) have investigated the roles and competencies required in carrying out human resource development (HRD) functions. In 1989, during the Human Resource Development Practice Model investigation, the competency concept was redefined, culminating in 35 competencies. These competencies have become the basis for human resource training and currently are being used as a training model domestically as well as internationally.

There are cultural and societal background differences between the United States and other international countries including different importance of training competencies. Texas A&M University has conducted training programs in Mexico for several years. Although all thirty-five competencies are being trained for, the Mexican culture places different priority on the competencies as far as rank of importance is concerned. Therefore, the purpose of this paper was to discover the difference in priority for competencies trained between U.S. and Mexican companies.

Training &Development in Different Cultures

The United Kingdom, France, Canada, and the United States have been researching an educational model to determine the change in priority of training competencies over the last 20 years (Paprock, 2000). Considerable progress has been made in identifying the competencies important to training and development; ASTD has led this effort in developing the roles and competencies for HRD practitioners.

A competency is defined as an area of knowledge, skills, attitudes, or intellectual strategies that are critical for producing key outputs (McLagan, 1989). Competencies can be the key components in strategic, operational, interpersonal, and technical tasks and decisions (McLagan, 1996). It is necessary to understand the context in which the competencies are needed. The identified competencies have been instrumental to the development of instructional materials for various types of needs in training programs. ASTD published a national study identifying 35 key competencies that professionals in Human Resource Development possess (McLagan, 1989). These competency models can be decision tools for training requirements.

As McLagan (1996) recalled, she and ASTD offered menus of outputs and competencies in 1989 so HRD practitioners could construct their own work profiles. They provided tools for using the models in such activities as career planning, assessment, organization design, and selection. However, these assumptions have been changed based on the time and situation. Whereas the assumptions focuses on changes in technology, economic pressures, and increased need for business and industry to operate in the international environment in 1983, the 1989 study highlighted such workplace challenges as accelerated rates of change, a concern for quality and customer service, and globalization. They also indicated the organization's requirement at that time.

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Global businesses today need employees who can manage themselves, teams that can do their own human resource work, and human resource management and development practices that are just in time rather than when-the-course-is-given. Therefore, McLagan suggested the delegation of the responsibilities of day-to-day people management and development to line managers, self-managing teams, and employees themselves. If time and situation have changed the assumptions, what can be the influence by the culture?

It is not difficult to understand that effective work behavior is shaped by societal cultures. Cultures operate from conceptual models by creating belief systems to filter expectations for appropriate and inappropriate behavior (Hansen & Brooks, 1994). When individuals become socialized and enculturated in a specific society, they have learned a complex set of explicit as well as implicit rules. These are concerned with how they should act among their peers who share the same culture by virtue of being raised under the same rules (Lonner & Malpass, 1994). Meaning making is reflected in rules that guide decision making, values, perceptions, expectations, situational evaluation, communication styles, and so forth. These conceptual systems influence how they interpret and understand organizational realities. The cultural frames also affect the business organization. Like other subcultures, corporation's cultures are shaped through similar organizational experiences, training, and professional associations. In other words, societal values, organizational affiliation, and occupational alliances shape employees' beliefs and values. HRD is an occupational subculture (Hansen & Brooks, 1994).

The work by the American Society for Training and Development might have the biases of America's own socio-culture beliefs because those data were collected only in the United States. When Valkeavaara (1998) examined human resource development roles and competencies in five European countries, although they considered the training and development highly in terms of training volume and financial investment, the importance of the competency training is different to the each country. The comparison indicates the diversity of the roles of European HRD practitioners based on its cultural variation.

Hofstede (1984) examined the culture in multinational corporations through the survey that measured ecological dimensions. He explored the differences in thinking and social action between 40 different nations using the four dimensions of cultural differences, which are power distance, uncertainty avoidance, individualism, and masculinity. His findings tell us there are differences in work related values between cultures based on the dimensions. Although the U.S. and Mexico border each other, their cultural differences are huge. This research finds there is a different distinct corporate identity or company subculture between these two countries.

Mexico and the U.S., according to his study, have quite different index scores. For example, while Mexico has 81 in the power distance index score, which indicates how the environment of organization is related to the authority and power, the U.S. has 40. Mexican employees have 82 in the uncertainty avoidance index, which shows how people are dealing with anxiety and stress in the organization, the U.S. employees have 46. In the individualism index, the U.S. has 91, Mexico has 30. In the masculinity index score, they have similar index scores.

Hansen and Brooks (1994) examined empirical studies reported between 1982 and 1992 that compares two or more countries and world regions focused on a business context. They analyzed the concept of HRD, training and development, career development, and organization development through studies basically conducted by the ASTD and additionally acknowledged the systemic and allied nature by reporting cross-national studies from management and organizational behavior. They concluded that HRD roles are interpreted differently in different cultures, HRD varies in the degree to which it is supported in different cultures, and techniques for transferring managerial and HRD technology are subject to country-specific differences. Their review of cross-cultural studies in business contexts provides the basis for development of training programs in Mexico.

There are few research studies devoted to human resource development cultural differences in Mexico. Since NAFTA, American and Canadian managers need to understand the key human resource challenges in Mexico and how these are to be successfully managed. One specific research study conducted in-depth interviews with top executives from Canada and Mexico from the business point of view (O'Grady; 1995). This study found difficulties in employing and managing Mexican employees from a Canadian perspective. He suggested eight key human resource management challenges for Canadian managers who are doing business in Mexico, and indicated several tips for Canadian companies in Mexico. He concluded that Canadian executives should recognize cultural differences prior to entry and account for these differences in their strategic decisions to mange the Mexican operation.

These findings also challenge us that not only managing human resources but also developing human resources reflects underlying assumptions and values of one's own culture. Human resource development programs need to be modified to succeed in Mexico.

National Network

In 1991, the Department of Educational Human Resource Development at Texas A&M University, in association with ASTD and NSPI, established a certification for trainers. The certification was based on nine studies dating to 1974. The first was from the U.S. Army TRADOC study in 1974. Other studies identifying competencies for trainers during that period were Civil Service Commission (1975-76), National Institute of Education (1975), Canadian Training Methods study (1976), Pinto & Walker's Study for the ASTD (1978), Competency Analysis for Trainers by the Ontario Society for Training and Development (1982), McLagan and McCullogh's Models for Excellence (1983), and McLagan's Models for HRD Practice (1989), which served to fulfill the following purpose:

- Summarized 11 roles of HRD professionals
- Identified and defined 53 HRD competencies.

These competencies have been updated by ASTD Models for Learning Technologies by George M. Piskurich and Ethan S. Sanders, published in 1998. Environmental factors such as the globalization of business and the accelerated rate of changes in technology identified by Ken Paprock, one of the authors, have been included to maintain currency of the program. A summary of all these studies are included in the next table:

Table 1. Summary of T&D studies in U.S. and Canada

Research/Study	Date	Author	Number of Competencies
Professional Development manual	1976	ASTD	14
U.S. Army TRADOC	1974	Army Infantry School	9
DD&E Report	1975	National Institute of Education	6
Civil Service Commission	1975-76	Bureau of Training of the US Civil Service Commission	6
Canadian Training Methods	1976	Ontario Society for Training and Development	11
Professional Development Manual (updated)	1976	ASTD	5
A study of Professional Training and Development Roles and Competencies	1978	ASTD	14
Competencies Analysis for Trainers	1982	Ontario Society for Training and Development	12
Models for HRD. Practice	1989	ASTD	35
Models for Learning Technologies	1998	ASTD	19

Leading to U.S. Certification

Using 35 key competencies from the ASTD study as a guide, Texas A&M University and local chapters of ASTD and NSPI designed a hands-on experienced-based program for Training and Development practitioners, who were already experienced and for those who were new to the field.

The Training and Development Certification Program consists of four 21-hour weekend sessions once a month for four months, plus follow-up activities to be completed between sessions. Competencies are structured into a program agenda around four general competencies of the HRD function according to McLagan: Business Competencies, Interpersonal Competencies, Intellectual Competencies, and Technical Competencies. At the end of the program, graduates receive a Certified Training Professional (CTP) certificate through Texas A&M University.

International Certification

Texas A&M University has been successful in training trainers in other countries. Currently another group of 50 is being certified. The goal is to collaborate with those countries that have a need for new trainers and/or trainers who need to upgrade their skills.

The plan for trainer certification is usually negotiated with the host country taking into consideration their economic situation and their human resource needs. The following is a brief description of steps in the certification when working internationally. All of these steps relate to the need assessment of the country's plan for modernization and the list of the priority competency needs from the pre-assessment self-inventory.

1. The first group(s) is trained by trainers through Texas A&M University.

2. The original sessions are conducted in English, but audio /visual materials in the language of the host country are also used.
3. From the first group of trained participants, some are identified who will participate in the second group as instructors.
4. The second group(s) is trained by trainers, with Texas A&M University trainers in the majority.
5. In the second session, an effort made to have most of the material in the language of that country.
6. By the third group, the majority of the trainers should be from the host country.

International Certification, the Case of Mexico.

In the case of this study, currently almost 100 trainers have been certified in Mexico through Texas A&M University, the second edition of this program in Mexico has already concluded. The Training and Development Certification program (T&DC) consists of four 15-hour weekend sessions once a month for four months, plus follow-up activities to be completed between sessions. Competencies are structured into a program agenda around four general competencies of the HRD function according to McLagan: Business Competencies, Interpersonal Competencies, Intellectual Competencies, and Technical Competencies. The T&DC program in Mexico was planned taking into consideration their economic situation and their human resource needs.

Research Questions

1. What are the rankings of competencies desired by trainers in the US?
2. What are the rankings of competencies desired by trainers in Mexico?
3. What is the difference in rankings between competencies desired by trainers in U.S. and those perceived by trainers in Mexico?
4. What is the impact of these differences on training of human resource professionals in different cultures?

Methodology

Social researchers now study a problem with several different types of research methodologies. According to Brewer and Hunter (1989), this diversity of methods implies rich opportunities for cross-validating, findings, and theories. Inside this methodological diversity, multi-method research is one such approach. The method for the first stage of the present study gathered information on previous studies completed in the U.S. and Canada. This specific approach is known as "meta-analysis", and ..."it is nothing more than the attitude of data analysis applied to quantitative summaries of individual studies"(Galss, McGaw, and Smith, 1981, p. 21). The results of the meta-analysis stage determined the ranking of competencies for the U.S. and Canada. This list was then compared to the data gathered in the second stage which was completed prior to the training in Mexico.

Prior to each international certification program, each participant completed a pre-assessment survey. The instrument was administered to approximately 100 participants, 50 from the 1999 program, and another 50 from the 2000 program. The participants are trainers from most all states in Mexico. The instrument was translated into Spanish for these participants. In 1999 there were 37 responses out of 45 participants. The rate of return for this group was 82%. The second grouping of trainees began in August 2000. The rate of response for this group of 49

Table 2: Ranking Results for Fall 1999 and Fall 2000 Pre-self-assessment

Rank	Competence	Mean	Stand. Dev.
1	Distance Learning*	3.36	1.30
2	Electronic Systems Skill	3.20	1.30
3	Career Development Theories and Techniques Understanding	2.96	1.12
4	Organization Development Theories and Techniques Understanding	2.80	1.13
5	Business and Industry Understanding*	2.80	1.74
6	Model Building Skill	2.78	1.07
7	Cost-Benefit Analysis Skill	2.77	0.99
8	Training and Development Theories and Techniques Understanding	2.67	1.26
9	Need Assessment*	2.61	1.10
10	Records Management Skill	2.59	0.93

was 44, or 89%. The rate of response overall is 86%. There were seven additional participants from the University co-sponsoring the training who were not paid participants and therefore they did not complete the instrument.

The following section shows a summary of the findings of the first two groups, one from 1999 and one from 2000. These groups participated in the training and pre-assessment inventory. However, due to changes in the environment, the authors decided that some areas (with an asterisk) must be emphasized or added to the basic 35 competencies in order to reflect advances in technology and business practices during 2000 program. The top ten competencies reported in 1999 and 2000 are listed in table 2.

A comparison of the competency ranking from the two groupings of Mexican participants is shown in Table 3. A general profile of those attending the training includes persons who work in training or human resources in a variety of businesses, such as automobile manufacturing, banking, government; both state and federal, and academic institutions. The greatest percentage was from business organizations. In both 1999 and 2000 the number of participants in any group was limited to 25. Two groups each year were trained during the same time periods. All groups had participants who had from zero training experience to some who had as much as twenty years.

Table 3: Comparison of Results Ranking Between 1999 and 2000

Rank	Fall 1999 (N=45; n=37)			Fall 2000 (N=49, n=44)		
	Competence	Mean	Stand. Dev.	Competence	Mean	Stand. Dev.
1	Electronic Systems Skill	3.14	1.40	Distance Learning*	3.36	1.30
2	Career Development Theories and Techniques Understanding	2.83	1.00	Electronic Systems Skill	3.25	1.22
3	Records Management Skill	2.59	0.93	Organization Development Theories and Techniques Understanding	3.07	1.17
4	Computer Competence	2.59	1.26	Career Development Theories and Techniques Understanding	3.07	1.21
5	Cost-Benefit Analysis Skill	2.54	1.07	Training and Development Theories and Techniques Understanding	3.07	1.35
6	Research Skill	2.54	1.12	Model Building Skill	3.02	1.11
7	Model Building Skill	2.49	0.96	Cost-Benefit Analysis Skill	2.96	0.89
8	Organization Development Theories and Techniques Understanding	2.49	1.02	Business and Industry Understanding*	2.80	1.47
9	Adult Learning and Understanding	2.46	0.87	Relationship Building Skill	2.68	1.36
10	Project Management Skill	2.43	0.90	Competency Identification Skill	2.64	1.01

The next table displays the frequency distribution of the identified competencies among the experts during studies carried out in the U.S. and Mexico. For comparison purposes, 8 competency studies for training and development are included. The percentages show the degree of their agreement with the identified competencies (Paprock, Williams, & Covington, 1996).

Table 4. Competency Identification Showing Percentage of Experts

1	Program Design and Development	100 %
2	Need Analysis and Diagnosis	88%
3	Determine Appropriate Training	75%
4	Individual Development Planing and Counseling	75%
5	Training Research	75%
6	Develop Material Resources	63%
7	Manage Internal Resources	63%
8	Manage External Resources	63%
9	Conduct Classroom Training (instructional techniques)	50%
10	Job/Performance Related Training	50%
11	Group and Organization Development	50%
12	Manage the Training and Development Function	50%
13	Competencies	50%
14	Communication	50%
15	Evaluation	50%
16	Professional Self Development	38%
17	Manage Working Relationship with Managers	13%

The instrument development was primarily a list of competencies from the McLagan study and used by Hansen and Brooks. However, in order to remain current with the environmental changes occurring, the 2000 inventory included those additional competencies that were identified for the Mexican context by the authors. Shown are the top ten choices with an asterisk. Also the following were discarded or accommodated for the 2000 instrument: performance observation skills, business understanding, computer competence, industry understanding, organizational understanding, intellectual versatility, and data reduction. This is consistent with the more current study by Piskurich and Sanders (1998) in which they were projecting increases and decreases in importance of competencies related to changes on technology, economics, politics, and social systems. For a more complete list of competencies see Table 5.

Table 5: Ranking Result for 1999 and Fall 2000 Pre-self-assessment

Rank	Competence	Mean	Stand. Dev.
1	Distance Learning*	3.36	1.30
2	Electronic Systems Skill	3.20	1.30
3	Career Development Theories and Techniques Understanding	2.96	1.12
4	Organization Development Theories and Techniques Understanding	2.80	1.13
5	Business and Industry Understanding*	2.80	1.74
6	Model Building Skill	2.78	1.07
7	Cost-Benefit Analysis Skill	2.77	0.99
8	Training and Development Theories and Techniques Understanding	2.67	1.26
9	Need Assessment*	2.61	1.10
10	Records Management Skill	2.59	0.93
11	Computer Competence	2.59	1.26
12	Research Skill	2.54	1.12
13	Organization Understanding	2.47	1.05
14	Industry Understanding	2.43	1.67
15	Competency Identification Skill	2.42	0.95
16	Relationship Building Skill	2.41	1.20
17	Facilities Skill	2.39	1.13
18	Project Management Skill	2.36	1.02
19	Vision Skill	2.35	0.88
20	Adult Learning and Understanding	2.35	1.00
21	Questioning Skill	2.33	1.07
22	Coaching Skill	2.32	1.05
23	Information Search Skill	2.30	1.05
24	Subject Matter Understanding	2.29	1.00
25	Organization Behavior Understanding	2.27	0.96
26	Group Process Skill	2.27	1.03
27	Cultural Diversity*	2.27	1.21
28	Negotiation Skill	2.26	1.02
29	Objectives Preparation Skill	2.24	0.94
30	Performance Observation Skill	2.22	0.98
31	Feedback Skill	2.21	0.96
32	Writing Skill	2.20	0.99
33	Intellectual Versatility	2.14	0.79
34	Delegation Skill	2.13	1.02
35	Observing Skill	2.12	1.03
36	Data Reduction Skill	2.11	0.91
37	Presentation Skill	2.07	0.91
38	Business- Understanding	2.03	0.83
39	Self-knowledge	1.90	0.88

Conclusions and Recommendations

The results in this study in comparing the training needs of Unites States trainers with Mexican trainers show some very interesting trends. The first research question asked US trainers to prioritize the training competencies they perceived to be the most important. The second research question asked the same question of the Mexican trainers.

Although there is some differences in the priority order, both the Mexican trainers and the US trainers listed essentially the same top ten competencies from the total list of 39. The standard deviation on all these competencies in the top ten list ranged from .87 to 1.4. The higher standard deviation could be attributed to the wording of the statements since training for additional competencies was included. As an example, distance education could have been confused with the competency of computer competence and electronic systems skill.

The third questions addressed the differences in the ranking from the US trainers and the Mexican trainers. The concerns and needs according to the priority rankings for the Mexican trainers demonstrates concerns in technology development as the newer technologies are being introduced. Another concern that is consistent in the top ten is a focus on organizational understanding. As new foreign industries enter Mexico they bring with them different structures and systems from their previous culture. This also relates to the need for applying methods for cost benefits. In the past, cost of training was not a skill high on their job descriptions.

Question four concerned the impact that these differences will have on training of human resource professionals in different cultures. In all, these data demonstrate that it cannot be assumed that countries at various stages of development have different priorities in the competencies needed for training and development; more studies need to be completed in developing nations. The authors believe that developed countries possibly can relate close to the list that has been generated and accepted in various organizations. We also cannot be assured that they will accept this list of competencies as corresponding to their cultural and economic development. Therefore, there needs to be a constant adaptation of materials to fit the culture and a constant adjustment to the level of participants that attend training sessions for training trainers. It was discovered that those with experience tended to attend the earlier group's sessions; novice trainers began to attend as the experienced trainers completed the training and discussed their experiences. The basic mission of the program is to increase the number of trainers trained from these countries.

Contribution to New Knowledge in HRD

Human resource development has a growing presence in countries in Europe, Asia, Australia, South Africa and soon, India. However our neighbors in both Canada and Mexico do not have the same presence. An important commitment of the signing of the free trade agreement (NAFTA) between Canada, Mexico and the United States, was the permanent collaboration between the three countries specifically in the educational and professional training fields. Mexico has the challenge then to join the competitive labor market, aiming to respond to the demand for international labor and high-qualified products. If we are to make in-roads to HRD as a field of study and practice, it is imperative that we address Mexico.

Texas is one of the major states that is attempting to address the issue with Mexico. The main reason for this is due to the demographic projections of the impact Mexico and the border region will have on our population in the next thirty years. The Texas population is merely an example of the impact Mexican-Americans will have in the future.

The Texas population, is expected to experience substantial growth in the coming decades, and one which will likely become increasingly diverse and mature. Due primarily to the proximity to the border region, the Anglo population in Texas is projected to only increase by 20.4 percent from 1990 to 2030, the Black population however would increase by 62 percent and the Mexican-American population by 257.6 percent. The total state population would become less than one-half Anglo by 2008 and, by 2030, the proportion of the population that is Anglo would be 36.7 percent while the Mexican-American population would account for 45.9 percent and the Black population 9.5 percent. Of the total net change in the population of Texas from 1990 to 2030, 87.5 percent is projected to be due to growth in the minority population of the State (Murdock, et al, 1996).

President-elect Bush has indicated that he will continue his concern for the border region and Mexico in particular as President. It is imperative that we conduct more and more research in HRD in Mexico if we are to compete in the global economy. Mexico is an area where the Academy of Human Resource Development could and should have a major impact. There are no professional organizations or much literature specific to Mexico in existence at this point. Since Mexico is generally looking to their neighbors to the north for support, it is imperative that the Academy steps up to provide this partnership.

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Organizational Trust: An Orientation for the HRD Practitioner

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Recent studies have pointed out the importance of organizational trust as a driver of organizational performance and, ultimately, organizational success. This review of literature on organizational trust examines the theory and research from a Human Resource Development (HRD) point of view. The results focus on cognitive-based theories, affect-based theories, and combined cognitive- and affect-based theories. A recent fusion approach is also presented, followed by a review of pertinent empirical research on organizational trust and performance.

Keywords: Organizational Trust, Trust Theory, Performance

"Today's leaders must not only have the stature to attract top talent, they must have the kind of character that retains it. Talented people have options. They can walk out the door at any time...A key attribute of this new kind of leader is the ability to generate and sustain trust."

Warren Bennis, 1997, Industry Week

A recent study by Watson Wyatt Worldwide (2000), revealed that of 7,500 employees surveyed at all job levels and in all major industry sectors, only *half* trust their senior leaders. Yet such trust, Watson Wyatt argues, is one of the seven key drivers of employee commitment and, thus, of performance. In fact, trust in senior leadership among those firms studied correlated with a 108 percent return to shareholders, as opposed to a 66 percent return among those firms having low employee trust in senior leaders.

We in HRD practice within economic communities. Francis Fukuyama (1995) notes that "in all successful economic societies these communities are united by trust" (p. 9), trust which "has a large and measurable economic value" (p. 10). Trust is a viable concern for HRD because it "does not reside in integrated circuits or fiber optic cables…trust is not reducible to information" (Fukuyama, 1995, p. 25). In short, trust is about people. Nor is this link between trust and economic performance cause for HRD practitioners to view organizational trust as anathema, despite recent debates on performance-based practice (Holton, 2000). We firmly agree with the assertion that HRD "can elevate human potential and enhance the human experience by focusing on both performance and learning" (Holton, 2000, p. 63).

Clearly the time has come for HDR practitioners to turn our attention toward organizational trust. Problematically, however, organizational trust is a phenomenon that until recently has at best been approached obliquely through trust studies in HRD's root disciplines: education, anthropology, sociology, psychology, and management. What we know about trust, organizational and in general, has never been integrated from an HRD perspective, and, consequently, its functional role remains virtually unexplored. Our purpose here, then, is to examine organizational trust related to three questions. The first forms our theoretical frame for the review: *What typology of trust offers HRD practitioners the most useful framework for organizing and understanding organizational trust theories?* The second organizes selected seminal literature to frame what we know to date: *How has organizational trust theory evolved, as framed by the selected typology?* The final pragmatic question is: *What is known about the role of organizational trust in performance?*

Methodology

The methodology used was content analysis of literature related to organizational trust. Levin's (1999) work first piqued our interest and served as a jumping-off point. In addition to pursuing the avenues related to HRD that her work offered, we searched the following databases: ABI/Inform. Dissertation Abstracts International, Educational

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Resources Information Center, PsychInfo, and Sociological Abstracts. Keywords included trust; organizational trust; trust and organizations; trust and management; trust and leadership; trust and research; and trust and theory. Reference lists of selected articles were examined for additional literature until we hit a repetitive saturation point. Literature was considered for inclusion from three standpoints: relevancy to organizational trust, relevance to HRD practice, and rigor. Specifically, we included articles from juried journals as well as work by authors considered by credible researchers to be seminal in the study of trust. Two dissertations were included based on their rigor and relevance to the subject as framed for this paper. We should mention that the exemplars presented here by no means represent all the work on trust or organizational trust. Space limitations necessitated a tight focus; what we present here is primarily an introduction to the field.

Theoretical Framework

Typologies of trust abound; many overlap, containing multiple elements of HRD's core disciplines. Most of the early ones were limited to interpersonal trust. Golembiewski and McConkie (1975), for example, focused on interpersonal trust operating on multiple levels interpersonal, group and organization. They characterized trust as "strongly linked to confidence in, and overall optimism about, desirable events taking place" (p. 133) and as "a salient factor influencing central dynamics in the full range of social systems" (p. 177). Cook and Wall (1980) looked at interpersonal trust in the workplace. Through this venue, they determined that studies of trust may be characterized by three approaches: indirect, situational, and self-report. From a slightly broader perspective, Hosmer (1995), examining trust as a link between organizational theory and ethics, sorted the trust literature into five categories: individual expectations, interpersonal relations, economic transactions, social structures, and normative philosophy. Weidner (1997) took a definitional approach, sorting 62 definitions of trust into six categories: trust as *attitude*, *belief*, *expectation*, *behavior*, *attribute*, and as a *multidimensional construct*. British management researchers Clark and Payne (1997) approached the trust literature from four theoretical orientations: personality theory, experimental orientation, sociological theory, and organizational theory.

The theoretical framework used in this literature review comes from recent work by Levin (1999) based on McAllister (1995), which offers the most useful way of organizing trust literature from an HRD standpoint because it synthesizes preceding typologies. McAllister's research revealed two distinct types of trust: affect-based and cognitive-based. Retrospectively, it is possible to distribute the trust literature into three categories: the cognition-based approach, the affect-based approach, or the combined affect- and cognition-based approach. The cognition-based approach focuses on expectations, weighing options, and making conscious choices. Firmly rooted in the Western tradition, it is an outgrowth of the Greek principle of self-interest. The affect-based approaches focuses on feelings related to trust, such as confidence, warmth, acceptance, and security; while not exclusively Eastern, it does allow for elements of the Eastern tradition in the exploration of trust. The combined approach considers both rational and emotional elements. Levin (1999) notes that "although cognition- and affect-based trust may be loosely coupled, each form of trust functions in a unique manner and has a distinct pattern of association to antecedent and consequent variables" (p. 27). The typology is not limited to a single level of analysis, nor is it overlapping except in a most deliberate sense. Further, while it recognizes the formal study of trust as rooted in psychology, it categorizes a vast body of cross-disciplinary literature in a we find more practical for the HRD practitioner than a typology based on HRD root disciplines.

Results

The Cognitive-based Approach to Trust

The idea of inferring trust from behaviors is at the heart of the earliest studies of trust. Social psychologist Morton Deutsch (1958) offered a seminal definition of trust that founded the cognitive approach to the construct:

> An individual may be said to have trust in the occurrence of an event if he expects its occurrence and his expectation leads to behavior which he perceives to have greater negative motivational consequence if the expectation is not confirmed than positive motivational consequences if it is confirmed. (p. 266)

In *Perspectives on Social Power*, William Riker (1974) expanded the notion of trust as cognitively-based:

> (1) Trust is an action, a piece of behavior, something somebody does. It is, of course, an internal event like choosing, judging, preferring, etc. and cannot, therefore, be directly observed. But internal events result in external actions (e.g., speech and movement), and from these one infers the internal behavior.
>
> (2) Trust is a decision to be dependent on other people. It can be contrasted, therefore, with various kinds of self-reliance.

> (3) Furthermore, trust involves risk, since the other people on whom one has decided to depend may or may not prove worthy. These last two features are what make the act of trusting such a complicated event… (p. 65)

Rotter, a contemporary of Deutsch, examined interpersonal trust from the social learning perspective (Rotter, 1954, 1966). He defined trust as "an expectancy held by an individual or a group that the word, promise, verbal or written statement can be relied on" (Rotter, 1967, p. 651; 1971, p. 444). Studies using Rotter as a theoretical framework have pointed out the correlation of trust to influence, internal locus of control, low need to control others, high self esteem, and openness to others' influence (Frost, Stimson, & Maughan, 1978); and gender differences in trust and interpersonal functioning (Heretick, 1984).

Zand's (1972) discussion of trust is firmly rooted in Deutsch (1957, 1958, 1960, 1962, 1973), containing the elements of vulnerability, external locus of control, and a situation in which the penalty for abused trust is greater than the gain from fulfilled trust. Trust, he asserted, influences and is influenced by three cognitive-based factors: information, influence, and control. Over time, the interaction among the constructs reaches equilibrium. Ultimately, trust reduces social uncertainty (Zand, 1997).

Gabarro's (1978) cognitive take claimed that trust develops over time and is based in three cognitive delineators: character, competence, and judgment. Gambetta (1988) examined trust as linked to situations in which there is no time to monitor. He agreed with Zand (1972) and Luhmann (1979) that trust is related to the degree of uncertainty. Recently, theorists (Meyerson, Weick, & Kramer, 1996) have used Gambetta (along with Luhmann) to support the theory of swift trust, where members of temporary groups in a unique situation exhibit behavior that presupposes trust, but without the traditional sources of trust.

Butler (1991) took a situational approach to trust in developing his trust instrument, the Conditions of Trust Inventory (CTI). The CTI was derived from his earlier research on situational trust in specific others (Butler, 1983, 1986; Butler & Cantrell, 1984). Butler, building upon Gabarro's (1978) work, identified ten conditions of trust: availability, competence, consistency, discreteness, fairness, integrity, loyalty, openness, promise fulfillment, and receptivity.

Up to this point in time, most of the literature on trust focused on individual or interpersonal trust with an occasional nod toward group trust (Gibb, 1965, 1972). In 1995, Hosmer undertook a thematic review of trust literature with the express purpose of looking at organizational trust. She then derived the following cognitive-based definition of organizational trust:

> *Trust* is the reliance by one person, group, or firm upon a voluntarily accepted duty on the part of another person, group, or firm to recognize and protect the rights and interests of all others engaged in a joint endeavor or economic exchange. (p. 393)

Similarly and concurrently, Mayer, Davis, & Schoorman (1995) approached organizational trust along these cognitive lines. Their definition echoes Hosmer's:

> [Trust] is the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party. (p. 712)

In addition, like Hosmer, they incorporate concepts into their model recognized by prior theorists as important to an understanding of trust: vulnerability (Rotter, 1954, 1966, 1967; Sabel, 1993), expectancy (Deutsch, 1958; Rotter, 1954, 1966, 1967), and monitoring (Gambetta, 1988).

The Affect-based Approach to Trust

Philosopher Trudy Govier (1994) says that "trust is an attitude based on beliefs and values and typically involving feelings and implying behavior" (p. 238). Affect-based trust theorists see trust as based on feelings, attitudes, and emotions. The earliest affective trust theorist was Gibb (1965, 1972, 1978). He tied trust directly to feeling; moreover, he saw trust as important to organizations, especially in relation to groups within the organization. His theory of trust focused on four affective variables: trust, openness, realization, and interdependence.

Rempel, Holmes, and Zanna (1985) designed a model of affect-based interpersonal trust. Their component theory asserts that trust is based on experiences. Depending on what stage the relationship is in, the experiences upon which trust is based change, as does the interpretation of those experiences. Trust has four critical elements: 1) it evolves from past interaction; 2) it involves attributions made regarding reliability and dependability; 3) it involves a willingness to risk; and 4) it is "defined by feelings of confidence and security in the caring responses of the partner and the strength of the relationship" (p. 96). From these elements, Rempel et al. (1985) derived three components: predictability, dependability, and faith.

From a fourth affective perspective, Sabel (1993) defined trust as "the mutual confidence that no party to an exchange will exploit the other's vulnerability" (p. 1133). It is a precondition of social life that is both cultural and malleable, depending "on the actors' reinterpreting their collective past…in such a way that trusting cooperation comes to seem a natural feature, at once accidental and ineluctable, of their common heritage" (p. 1135). In short, trust becomes possible in likely situations because reframing makes it "feel" natural.

The Combined Affect- and Cognitive-based Approach to Trust

Like many of their predecessors, Golembiewski and McConkie (1975) focused on interpersonal trust. However, they determined that trust was both an affective and a cognitive construct. They characterized affective trust from an organic perspective. Trust is "nurturant sun" (p.134): warm, accepting, and nurturing. Trust is "necessary rain" (p. 135): uncertain, implying risk. Finally, trust may bear "fruit" that is "dysfunctional or even pathologic" (p. 138): inflexible and rigid regardless of context or situation. From the cognitive standpoint, they emphasized Zand's (1972) concept of trust as a having a spiral reinforcing quality between trusting behavior and risking behavior.

Some sociologists also took a combined approach to trust. In 1985, working heavily from Luhmann (1979) and Barber (1983), Lewis and Weigert (1985) argued that trust functions primarily as a sociological construct rather than as a psychological one. They assert that trust has three bases: a cognitive process basis, an emotional basis, and a behavioral enactment basis.

Trust in Organizations

It was not until the 1990s that theorists looked at trust specifically within the organizational context. Mayer, Davis, and Schoorman's (1995) affect-based model of trust looked at dyadic trust between individuals within an organization. Jarvenpaa, Knoll, and Leidner (1998) applied the model looking at trust between groups within an organization. Still others (Ring and Van de Van (1992) looked at organizational trust in the establishment of strategic alliances, applying this viewpoint to sub-units within complex multidivisional organizations.

McAllister (1995) was one of the the first to wed organizational trust (from the interpersonal perspective) to an affect- and cognitive-based model. He examined the role of trust in interpersonal cooperation between managers and professionals in organizations and created a model that depicted linkages between the two types of trust, their antecedents, and their outcomes. What made this model so interesting and significant is that McAllister incorporated most of the major themes of trust that previous theorists had addressed. Moreover, he integrated them in such a way that the dynamic nature of trust became evident. This was the first effective integration of the psychological and sociological dimensions of trust.

Though Levin (1999) typed Cummings and Bromley (1996) as cognitive-based trust theorists, a close examination of their model reveals that they are, in fact, proponents of the combined approach. They operationalized organizational trust in three ways. "Trust," they define, is

> …an individual's belief or a common belief among a group of individuals that another individual or group (a) makes good faith efforts to behave in accordance with any commitments both explicit or [sic] implicit, (b) is honest in whatever negotiations preceded such commitments, and (c) does not take excessive advantage of another even when the opportunity is available. The rationale for this definition for trust rests on the socially embedded, subjective, and optimistic nature of most interactions within and between organizations that involve trust. (p. 303)

They developed the Organizational Trust Inventory (OTI) to measure trust between units in an organization or between organizations themselves. The OTI measures trust across three dimensions: keeps commitments, negotiates honestly, and avoids taking excessive advantage.

A Fusion Theory

Recently, Sashkin (1996) fused elements of the three approaches to trust -- affective-based, cognition-based, and combined affect- and cognition-based -- into a single, integrated theory of organizational trust. He defined organizational trust as "the trust that employees feel toward management and the degree to which they believe what management tells them" (Sashkin, 1990, p. 6). The elements of feeling and belief denote both affective and cognitive elements. Levin (1999) explained that "the *confidence* felt by employees represents the affective element of trust, and *belief* in what management says represents the cognitive element of trust" (p. 42).

Sashkin's interest is clearly organizational; specifically, he focuses on how individuals within the organization and in the aggregate perceive the behaviors of senior- and executive-level managers (Levin, 1999). Moreover, Sashkin considers trust integral to leadership. In his Visionary Leadership Theory (Sashkin, 1996b), trust corresponds with *credible leadership*, one of four transformational leadership behaviors. The source of organizational trust is senior- and executive-level management (Sashkin, 1996), which aligns with other theorists who support the central role of management, especially top management, in developing trust (Cohen & March, 1974; Creed & Miles, 1996) and reducing ambiguity (Sako, 1995). What delineates Sashkin's construct is that it employs an organizational level of analysis by looking at the behaviors of senior and executive level managers *as a group*. It is the behaviors of leaders at the highest organizational levels that serve to establish a climate (Denison, 1996) of organizational trust (Sashkin, 1996). By engaging in behaviors that strengthen confidence and belief in top management, these senior leaders increase feelings of security (Rempel et al., 1985) and reduce employees' feelings of ambiguity, feelings with both an affective and cognitive component Ambiguity reduction functions cognitively to improve efficiency, effectiveness, and productivity, and affectively to reduce employee stress (Levin, 1999).

Sashkin and Levin developed the Management Behavior Climate Assessment (MBCA) (Sashkin, 1996; Sashkin & Levin, 2000) to measure organizational trust. Its consistency scales consider how senior executives act toward different people, what they tell different people, how they act at different times, and what they say at different times. The credibility scales assess the match between executives' words -- what they say -- and past actions, future actions, promised actions, and future outcomes. To date, it is the only instrument that measures organizational trust at the organizational level of analysis, to include trust of aggregated individuals of the organization as a whole and trust of groups within the organization of the organization as a whole.

Trust and Performance

Virtually every organization today is seeking ways to address problems that affect performance. More than forty years ago, Likert (1958) stressed the importance of considering human factors when discussing measures of organizational performance. He specified levels of confidence and trust (along with motivation, loyalty, communication, and decision making) as key to organizational performance (Garay, 2000). More recently, Bennis (1997) identified organizational trust as a critical factor that may contribute to improved economic performance. Jones and George (1999) offer a symbolic interactionist model postulating that unconditional trust is a mechanism by which organizations can develop unique capabilities that provide an unmimicable competitive advantage; in contrast, Whitener, Brodt, Korsdaarg, and Werner (1998), operating from the perspective of social exchange theory, intimate that managerial trust may be critical for success in interdependent task performance, reengineering efforts, and marketplace positioning. There is, however, scant empirical research exploring the nature of the connection between organizational trust and the effectiveness of the people who make up an organization, or of the organization as a whole. Nonetheless, there is evidence suggesting that a relationship does exist. For example, Zand (1972), in a carefully controlled experiment, showed that higher levels of trust induction in a group resulted in significantly greater group performance as compared with induction of low trust levels. Levin (1999) demonstrated that performance across six organizations was related to organizational trust levels, although this relationship did not reach a level of normally acceptable statistical significance due to sample size. Based on these indications, it is reasonable to assume, as does Hosmer (1995), that if trust leads to greater cooperation among the members of an organization and, in turn, to improved organizational performance, then organizational trust offers a worthwhile opportunity for HRD research.

Theorists seem to agree that a trust-performance link may in fact exist, though they are clearly divided as to the nature of that relationship and how it functions. As we have noted, some empirical research indicates that trust improves performance in groups and dyads; however, the evidence as it pertains to organizations is sparse. More recent studies have pointed to the notion that there is a measurable relationship between organizational level trust and certain organizational performance indicators. In addition to the Levin (1999) findings linking organizational trust to financial performance, Gilbert (1995), for example, found organizational trust to be a predictor of organizational commitment, which is directly related to turnover. Another study (Zaheer, McEvily, & Perrone, 1998) found that trust between customer and supplier organizations correlated highly with performance indicators related to customer satisfaction with supplier performance. The idea of organizational performance as a function of employee trust in senior leadership is prominent in a new study (Davis, Schoorman, Mayer, & Tan, 2000), which empirically demonstrated a significant positive relationship between employees' dyadic trust of a general manager and financial performance and a marginally significant negative relationship to turnover.

While the literature demonstrates that it is reasonable to assume that organizational trust may be related to positive performance outcomes, that postulate has yet to be successfully tested empirically.

Contributions to HRD Knowledge

The study of organizational trust holds great potential for new and significant knowledge associated with HRD practice:

Contribution to Theory. Little is known about organizational trust *per se*. However, several psychometrically sound instruments now exist to measure organizational trust (Butler, 1991; Cummings & Bromley, 1996; McAllister, 1995; Sashkin & Levin, 2000). Judicious use of these instruments may add to what is known about trust at the organizational level of analysis and how it relates to other critical HRD considerations.

Leadership and Trust. Research in organizational trust may help identify linkages between senior executive management behavior and the degree of trust which employees hold in their employing organization. Understanding such linkages may enable senior level executives to select those behaviors that subsequently enhance organizational effectiveness. Moreover, the study may provide a theoretical basis for senior executive development of staff organizational trust.

Mechanisms of Organizational Trust. HRD work in this area may assist in determining actions senior leaders can take to engender organizational trust among employees, thus leading to improvement in organizational performance. This avenue of investigation may also serve to further understanding of causal relationships concerned with a) how leadership behaviors impact organizational performance; b) how organizational trust interacts with diversity factors such as demographic and biographical variables to affect organizational performance; c) the functional relationship between organizational trust and performance indicators related to cost and profit; and d) the function of organizational trust as a lever in the organizational system as a whole.

Conclusion

While the study of trust is not new, research into its explicit role in organizations is a nascent endeavor. Though abbreviated in scope, the literature reviewed here nonetheless demonstrates that there is still much to be learned regarding the functions and mechanism of organizational trust. Expanded research into the manner in which organizational trust affects performance factors and ultimately the financial bottom line is an important first step. We propose that mining the wealth of knowledge that the study of organizational trust offers HRD cannot help but better equip us for the challenges ahead.

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A Conceptualization of Interpersonal Trust in the Workplace

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Presented is a review of the existing literature on interpersonal trust in the workplace. It focuses upon trust at the individual level and conditions trust within a coworker relationship. From this perspective a conceptual framework is presented for the understanding of interpersonal trust in work settings. Following the conceptual presentation, implications for new knowledge and practice in the HRD field are offered.

Key Words: Trust (Psychology), Interpersonal Relations, Trust in the Workplace

With the demise of the structured bureaucracy as an organizational model, the hierarchical ordering of work flows is declining. Collaborative networks where work is cooperative rather than individualistic are an increasingly popular form of organizational structure (Spritzer, 1999). Scholars have widely acknowledged that trust can lead to cooperative behavior among individuals within organizational settings (Mayer & Davis, 1999). Trust in the workplace has also been linked to improved teamwork (Jones & George, 1998), ad-hoc group formation (Meyerson, Weick, & Kramer, 1996), and increased coordination between managers (McAllister, 1995). Organizations today are looking for tools to understand trust and its impact upon the work groups and networks which increasingly surface in flatter organizational structures (Lewicki & Bunker, 1996). Organizations are also looking for ways to promote trust between people and groups to enhance the output created under these collaborative conditions (Jones & George, 1998).

Purpose Statement

The purpose of this review is to determine the current state of knowledge of and research pertaining to interpersonal trust in the workplace. The concept of trust in the workplace, and its recognition in an expanding body of literature, demonstrate trust's importance in organizational life. Recent work reflects an interest in trust from both the human resource management and organizational behavior disciplines (McAllister, 1995; Mishra, 1996; Pfeffer, 1998). Additionally, several compendia of literatures on trust have recently been published (see Academy of Management Review, July, 1998; Hosmer, 1995; Kramer & Tyler, 1996) which reflects this increased attention on trust in the workplace in general.

Theoretical Framework

Different theoretical foundations to the concept of trust are present in the literature, but are focused for this review in the behavioral sciences. Despite the foundational theory differences, commonalities for two specific parameters which condition trust are present in the literature.

Theoretical Foundations

The general concept of trust emanates from theoretical foundations in economics, psychology, and social-psychology (Lewicki & Bunker, 1996). Economic theory postulates trust as a calculative exchange between parties based upon a rational analysis of the costs and benefits to a transaction (Williamson, 1993). Psychological theory views trust as a belief or feeling originating in early childhood that creates personality differences and influences a psychological condition of readiness to trust (Worchel, 1979). Social-psychology views trust as an expectation of behavior between individuals or between groups of individuals (Deutsch, 1960). In a recent review of trust research, Rousseau, Sitkin, Burt, and Camerer (1998) claimed considerable convergence in the contemporary scholarship on trust as an accumulation of concepts within the same network of ideas, rather than as a fragmentation of the conceptual theory of trust. Theorists from each of the above fields are found to be united on the essence of trust as

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central to the human condition and on the influence trust has upon personal behavior (Hosmer, 1995).

This investigation of the literature focused upon trust at the interpersonal level, adopting the social-psychological viewpoint of trust as an expectancy of another person's behavior. Reflective of both the interpersonal level at which this review focused and the dynamic nature of interpersonal dependence in workplace settings, trust was confined in this investigation to coworker behavioral reliance within a workplace context. Theories on interpersonal trust in other contexts such as romantic or academic situations, were not considered. Likewise, trust at the process level or organizational level (Hosmer, 1995) was not considered.

Conditional Parameters

The general concept of trust is known to be conditioned by the parameters of risk and reliance (Lewis & Weingert, 1985). Despite different theoretical origins, scholars have been cited as fundamentally agreeing upon a general conceptualization of trust that includes risk and reliance as broad conditional elements (Currall & Judge, 1995; Lewis & Weingert, 1985). In interpersonal situations, uncertainty regarding the intentions and actions of an individual is a source of risk (Rousseau et al., 1998), as is ambiguity about future outcomes of the actions of others (Lewicki & Bunker, 1996). Reliance involves a willingness toward interdependence between parties (Lewis & Weingert, 1985).

Research Questions

To address interpersonal trust among coworkers within organizational settings, this investigation of the literature sought to determine how interpersonal trust was conceptualized by scholars from a basis within the theoretical framework. The review was guided by the following questions:

How has interpersonal trust in the workplace been defined?
What are the dimensions of trust at the individual level in the workplace?
What antecedents lead to the development of interpersonal trust in the workplace?
What are the known outcomes of interpersonal trust in the workplace?

The existing literature was surveyed utilizing keywords of trust, interpersonal trust, workplace, work organizations, organizations, and work. Searches were conducted in the data bases of ABIinform, ERIC, Wilson Select, and Psychinfo in order to uncover both work setting based trust studies and behavioral science based literature. Identified articles were then screened for approaches to trust at the individual level. Approaches to trust at the group or organizational level were generally excluded as the focus for this review was at the coworker level.

Research Conceptualization of Trust

The literature on interpersonal trust in the workplace revealed some commonalities to the definition of interpersonal trust and its form within professional settings. Additionally, the research revealed characteristics or dimensions of interpersonal trust, antecedent influencers to interpersonal trust, and several outcomes of interpersonal trust.

Definition and Professional Context Influence on Interpersonal Trust

While early researchers lacked agreement on a suitable definition of trust (see Gambetta, 1988; Rotter, 1971), scholars have recently been found to fundamentally agree on a meaning of interpersonal trust that involves a behavior undertaken in uncertain conditions (Rousseau et al., 1998; Lewicki & Bunker, 1996). In examining conceptualizations of trust from several researchers, Rousseau and colleagues (1998) found a root assumption that trust is a personal condition that causes action. In general, interpersonal trust was defined as an *individual's behavioral reliance upon another person under a condition of risk* (Currall & Judge, 1995). The terms "behavioral reliance" in this definition reflects the action taken under a personal psychological condition. Further, risk is reflected in the lack of control over the other party (Hosmer, 1995). Dependence upon unknown actions of the other party represent the risk parameter.

Also revealed was some consensus on different features of interpersonal trust within the professional or workplace context. In professional relationships, trust does not involve conditions under which physical harm may occur or life may be lost (i.e. trusting the paramedics in life threatening emergencies). However, variations in the risk and reliance parameters alter the level and potentially the form that trust takes (Lewicki & Bunker, 1996). The dynamic nature of the internal workplace is regarded as constantly impacting an individual's psychological intention to accept risk, be vulnerable, and engage in trusting behavior (Rousseau et al., 1998). Therefore, any particular professional setting and its contextual characteristics are likely to impact the nature of trust which exists (Sheppard & Sherman, 1998).

Multidimensional Characteristics of Interpersonal Trust

Barber (1983) postulated trust as a multidimensional construct, incorporating expectations of two dimensions, competence and fiduciary responsibility (i.e., concern). Later studies (Bromiley & Cummings, 1995), provided empirical support for the concept of trust as a construct composed of multiple dimensions. Recent research has begun to treat trust exclusively as a multidimensional construct (Butler, 1991; Currall & Judge, 1995; Mishra, 1996). This review of the trust literature identified a categorization of four generally accepted dimensions of interpersonal trust. The dimensions are: openness/honesty, competence, caring and reliability (Butler, 1991; McKnight, Cummings, & Chervany, 1998; Mishra, 1996). A comprehensive conceptualization of interpersonal trust, inclusive of the risk and reliance parameters described above and the four dimensions of interpersonal trust discussed below, is shown in Figure 1. Each individual dimension of interpersonal trust is briefly discussed below.

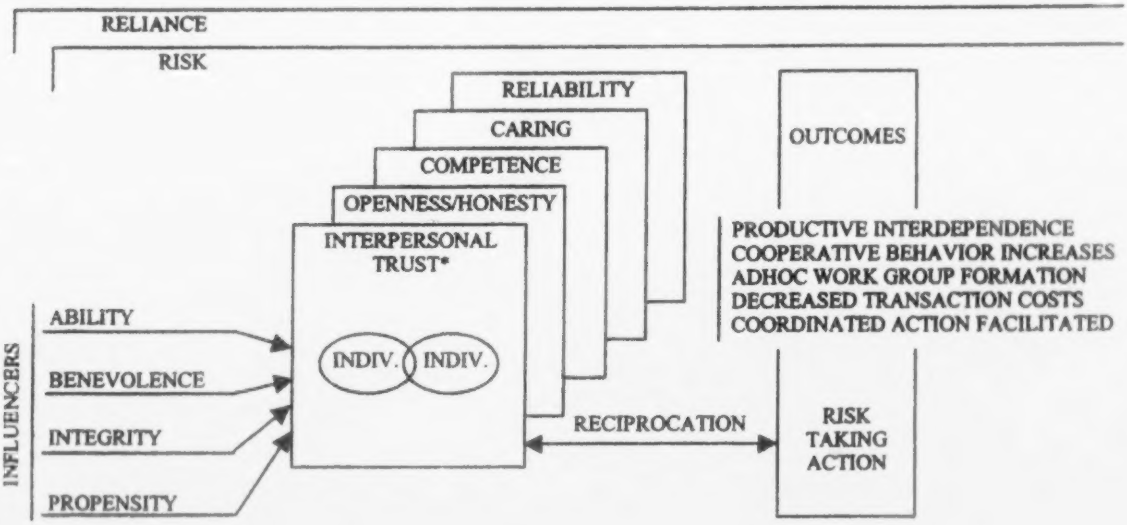
RELIANCE
RISK
RELIABILITY
CARING
COMPETENCE
OPENNESS/HONESTY
INTERPERSONAL TRUST*
INDIV.
INDIV.
OUTCOMES
PRODUCTIVE INTERDEPENDENCE
COOPERATIVE BEHAVIOR INCREASES
ADHOC WORK GROUP FORMATION
DECREASED TRANSACTION COSTS
COORDINATED ACTION FACILITATED
INFLUENCERS
ABILITY
BENEVOLENCE
INTEGRITY
PROPENSITY
RECIPROCATION
RISK TAKING ACTION

Figure 1. Conceptualization of Interpersonal Trust In a Professional Context.
* an individual's behavioral reliance on another person under a condition of risk (Currall & Judge, 1995)

Openness/Honesty. Openness/honesty involves each of its two component parts. Openness, as a separate dimension of trust, has been referred to as freely sharing ideas and information (Butler, 1991). Openness, involves the disclosure of accurate information (Currall & Judge, 1995; Whitener, Brodt, Korsgaard, & Werner, 1998) and not the filtering or distorting of information. Accurate and forthcoming information, as well as adequate explanations of decisions have been found to lead to higher levels of trust between individuals and their immediate superiors or managers (Korsgaard, Schweiger, & Sapienza, 1998). Honesty, which has also been termed behavioral integrity (Whitener et al., 1998), involves the consistency of a person's actions with his or her espousals. Butler and Cantrell (1984) found honesty to be the most important trust dimension in work situations between both superiors and subordinates.

Competence. Competence involves skill and ability to perform necessary tasks. Within the interpersonal trust construct, it involves knowledge of a person's skill level and ability to perform a future task for which that person is relied upon. Gabarro (1987) distinguished between functional competence (knowledge and skills related to a certain task) from personal competence (people skills). Butler and Cantrell (1984), however, combined these distinctions and defined competence as technical and interpersonal skills required for one's job.

Caring. Caring involves the treatment and exchange behavior between persons that reflect concern for basic human needs and limited opportunitism (Currall & Judge, 1995). At a minimum, this dimension of trust means that one party believes it will not be taken unfair advantage of by another (Bromiley & Cummings, 1995). However, trust with regard to caring goes beyond a failure to be opportunistic and involves concern for the welfare of others (Mishra, 1996). Caring with respect to trust in an organizational setting has also been termed sharing (Whitener et al., 1998), which includes employee involvement, and delegation of control.

Reliability. Reliability involves acting upon promises or claimed skills (Currall & Judge, 1995), and has also been termed behavioral consistency (Whitener et al., 1998). Reliability also involves actions over time and across situations such that future actions can be predicted with a degree of accuracy (Mayer & Davis, 1999). Reliability, also termed predictability or behavioral consistency, has been found to be an important aspect to trust by many scholars (Gabarro, 1987; Whitener et al., 1998), as the risk parameter, or willingness to be vulnerable to the actions of others, appears to be moderated by the extent the others' actions can be predicted.

Combined Dimensions. In the conceptual framework presented, these separate dimensions of trust represent the components of an overall interpersonal trust construct. Additionally, each dimension of trust has been found to combine multiplicatively to create the overall degree of trust between two parties (Mishra, 1996). Low levels of one dimension may offset overall trust, even if higher levels are found in other dimensions. For example, an individual may be considered competent at work and able to perform the necessary tasks required of a job, but may not be trusted by coworkers if the person's words and actions are not reliable.

Antecedents to Interpersonal Trust

In addition to the dimensions of interpersonal trust within the workplace, research has also examined factors which lead to trust between co-workers; thus, certain antecedent influencers have been identified (Butler & Cantrell, 1984; Hosmer, 1995; Whitener et al., 1998; Mayer & Davis, 1999). These antecedent influencers include a general propensity to trust and certain behavioral characteristics.

Propensity to Trust. McNight et al. (1998) differentiate influencers into those present with regard to the trusting person (disposition to trust) and those observed in the trusted party (trusting beliefs). Disposition to trust or propensity to trust (Mayer, Davis, & Schoorman, 1995) is regarded by some researchers as a necessity for initial trust to occur (McKnight et al., 1998). Initial trust involves contexts where there is no experience or firsthand knowledge of the other party (McKnight et al., 1998). In these cases, initial trust involves the assumption of another party's future action or behavior based upon a presumed level of competence or skill, for example, computer program experts partnered to address a specific software issue (Meyerson et al., 1996). However, for sustained trust over time in the workplace, influencers arising from knowledge of the other party are generally considered necessary (Butler, 1991; Currall & Judge, 1995; Mayer & Davis, 1999). These knowledge-based influencers can collectively be labeled as behavioral characteristics (Butler & Cantrell, 1984), also termed behavior categories (Whitener et al., 1998).

Behavioral Characteristics Which Influence Trust. Specific behavioral characteristics that lead to the development of trust have been considered repeatedly in the literature. Early researchers identified as few as two characteristics (Hovland, Janis & Kelley, 1953), while later work delineated numerous characteristics (Butler, 1991). Mayer et al. (1995) conducted an extensive review of the research on trust antecedents and discovered three behavioral characteristics that appeared most often: ability, benevolence and integrity. These three characteristics have been utilized subsequently in further research on the antecedents of trust (Currall & Judge, 1995; Mayer & Davis, 1999; Whitener et al., 1998) and have been cited as the most commonly used trust factors in the literature (McKnight et al., 1998).

According to Mayer et al. (1995), *ability* is "that group of skills, competencies and characteristics that enable a party to have influence within some specific domain" (p. 717). The domain is specific because the trustee may be highly skilled in one area specific to a profession, while not highly skilled, trained or experienced in a different area (Mayer et al., 1995). Ability has been used by researchers synonymously with competence (Butler, 1991; Butler & Cantrell, 1984; Mishra, 1996). It is considered cognitive in formation and may be confirmed by professional credentials or certification (McAllister, 1995). Ability as a critical behavioral characteristic has also been described as perceived expertise (Hovland et al., 1953) or expertness (Gabarro, 1987), although all imply a competence or set of skills applicable to a single domain (Mayer et al., 1995).

Benevolence is demonstrating concern for the welfare of others (McAllister, 1995; Mishra, 1996). On an individual level, Mayer et al. (1995) and Mayer & Davis (1999) define benevolence as "the extent to which a trustee is believed to want to do good to the trustor" (pp. 718 and 124, respectively). However, benevolence as an influencer to interpersonal trust formation is considered more than an intention or belief (McKnight et al., 1998). It is identified behavioral characteristics of another, in whom one may be considering to trust. Mayer et al. (1995) cite numerous researchers who have identified benevolence-like behavioral characteristics as a basis for trust. McAllister (1995)

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cites findings from attribution research in claiming that certain behaviors including "demonstrating interpersonal care and concern rather than enlightened self interest" as critical for the development of affect based trust (p. 29). Benevolence not only is reflected in behavior, it is a behavioral characteristic that connotes a personal orientation which is not self, but other-directed (Korsgaard et al., 1998).

Whitener et al. (1998) define behavioral *integrity* as consistency between words and deeds, and suggest that employee observations of a manager's behavioral consistency enables them to make attributions about the manager's "integrity, honesty and moral character" (p. 516). Regarding the development of trust, the words-and-deeds connection appears to be creating a foundation with regard to integrity. Mayer et al. (1995) found the relationship between integrity and trust to involve a set of principles to which one party adhered and which is deemed acceptable to the other party. Hosmer (1995) refers to these principles as "moral values" (p. 384), as did Butler & Cantrell (1984).

Integrity and consistency were significant trust determinants in Butler and Cantrell's (1984) model, and integrity was included as a trust factor in Butler's (1991) 10 conditions of trust. Integrity has also been included in several models from Mayer and colleagues (Mayer & Davis, 1999; Mayer, et al., 1995). Thus, the inclusion of integrity as an antecedent influencer to the development of trust is well grounded in previous approaches to trust.

Outcomes of Interpersonal Trust

Recent work reflects an interest in trust, particularly interpersonal trust, from the perspectives of both individual outcomes and organizational outcomes (Kramer & Tyler, 1996).

Organizational Outcomes. Work in the organizational behavior and human resource management disciplines has focused attention upon trust as facilitating organizational performance outcomes such as efficiency, cooperation, coordination, and team performance. These organizational outcomes are presupposed to result from trust within groups (Shaw, 1997). However, little evidence was found in the literature that supports the notion of organizational performance outcomes arising from trust between groups. Rather, these organizational outcomes have been concluded from individual level data (see Fishman & Khanna, 1999; McAllister, 1995).

Individual Outcomes. Interpersonal cooperation and teaming as individual outcomes of trust have been explored by several researchers (see Jones & George, 1998; Gambetta, 1988), and there appears to be wide acknowledgement that trust can lead to cooperative behavior among individuals within organizations (Mayer et al., 1995; McAllister, 1995). Jones and George (1998) linked unconditional trust directly to interpersonal cooperation and teamwork to result in a workplace condition termed "productive interdependence" (p. 535). These researchers claim that unconditional trust can fundamentally change the quality of exchange relationships, and actually convert a group of individuals into a synergistic team.

McAllister (1995) distinguished between affect-based trust and cognition-based trust. In his study of trust between managers in an organization, the existence of affect-based trust was found to facilitate cooperative behavior and increase coordinated action among individuals (McAllister, 1995). However, even without the affective and cognitive distinctions, trust has been found to promote ad-hoc between-person work coordination without prior knowledge of or affect toward others (Meyerson et al., 1996). Further, trust in the workplace has been found to decrease transaction costs, the control and monitoring expenses related to personnel (Bromiley & Cummings, 1995) and to facilitate increased communication between persons (Fishman & Khanna, 1999).

Finally, although interpersonal trust at the individual level in workplace settings has not been studied extensively as an antecedent influencer to organizational trust, its link to organizational performance outcomes is clear. Thus, cooperative behavior, increased coordinated action and team formation all appear as performance-related outcomes of interpersonal trust in workplace settings. These organizational performance outcomes, particularly team formation and work group cohesion, may prove to be important influencers to organizational trust, although such a conclusion can not be drawn from the interpersonal trust research reviewed herein.

Implications in HRD

Theory suggests that trust is a critical factor for collaboration between employees, and trust has been found to lead to positive outcomes with regard to team formation, cooperation, and coordinated performance. Current research results can assist organizations, HRD practitioners, other HRD researchers, and educators in business and HRD to more fully understand interpersonal trust and its development. Organizations can learn to internally build and develop trust within their employee ranks from an understanding of factors which influence its emergence. Identifying the dimensions that comprise interpersonal trust, particularly between individuals within work situations, may specifically help executives, managers, and human resource professionals to foster environments conducive to trust building. Through a fuller understanding of interpersonal trust and influencers to its emergence in the workplace, HRD professionals can develop methodologies and practices to cope with the condition of interdependence present in work environments of less hierarchical structures.

Other researchers on interpersonal trust might benefit from a conceptual understanding of antecedent influencers to trust, or to a specific dimension of interpersonal trust. Applied researchers might benefit from a fuller understanding of interpersonal trust when examining trust within an existing work setting, since much of the existing research on trust has been in non-professional settings (Butler & Cantrell, 1984; Currall & Judge, 1995; Rotter, 1971). Theorists might benefit from a perspective on trust within the conceptual framework presented as a basis from which to approach the topic.

Finally, educators in both HRD and business curricula might benefit from this compilation of knowledge regarding interpersonal trust as a depiction of the current understandings of one component of the work environment. Educational programs and courses in both HRD and business might be expanded to reflect the condition of interpersonal trust within which individuals function in a work setting. Interpersonal trust is gaining increased attention in both the organizational behavior and human resources fields (Mayer et al., 1995) and further scholarly research from both the organizational behavior and HRD disciplines is hoped to result.

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Organizational Trust and Attachment to an Immediate Leader: A Pilot Study

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This pilot study explored whether attachment to the immediate leader affects organizational trust. Organizational trust scores of individuals having positive attachment to the immediate leader were compared with those having negative attachment. Results showed that attachment to an immediate leader did not significantly affect organizational trust scores. Implications for support of Sashkin's theory of organizational trust are discussed.

Keywords: Trust, Organizational Trust, Attachment

In today's modern and highly efficient organizations, where technology rules and doing business requires precise tactics and savvy strategic decisions, attachment -- the propensity to trust -- is still a defining factor in the degree of cohesion between organization members. Even in the most high-tech companies, we still hear phrases like, "I'd want him in my foxhole," or "I'd trust her with my life."

Trust allows us to put faith in another person, to take that person at their word, to count for true what that person says and to rely on their actions. Organizational trust is similar, yet with a significant distinction: its referent is not an individual, but a complex construct that includes members, policies, and practices that are shaped by its leaders. In the military, which holds its leadership directly responsible for life or death decisions, trust is critical. Yet arguably, even in this organization whose members are legally charged to obey the lawful directives of those of superior rank, those who do not trust their leaders may be less likely to fully risk their own well-being under orders. Conceivably, lack of trust in leadership could compromise commitment and lead to the failure of an essential mission. Similarly, organizational trust is vital in the civilian sector as well. The recent events surrounding the Firestone tire recalls demonstrate clearly how a disconnect between an organization's leaders and its members can result in mistrust leading to "mission failure" that spells injury and even death.

One problem about organizational trust is the issue of its locus. Exactly which leaders drive organizational trust? Is it shaped more by first-line leadership -- what we shall hereafter refer to as *immediate leaders* -- or by senior or executive level leadership as a whole? Sashkin (Sashkin & Levin, 2000) argues that organizational trust is driven by senior and executive managers of that organization. Nyhan and Marlowe (1997), on the other hand, contend that that "an individual's degree of trust varies between his or her supervisor and the organization as a whole" (p. 616), indicating that immediate leaders play a role as well. If so, attachment -- how much employees like or dislike an immediate leader -- may play an as yet undefined role in organizational trust.

Purpose of the Study

The purpose of this pilot study is to explore whether attachment to the immediate leader affects organizational trust. Specifically, the study examines two military directorates (hereafter referred to as "groups") within a military division to determine whether members feel less trust for their organization when they are supervised by an individual for whom they feel negative attachment (dislike) than when they work for one for whom they feel positive attachment (like). In this study, the *organization* is the military division comprised of seven directorates; *immediate leader* refers to the officer in charge of a directorate; *senior or executive level leadership* refers to division leaders who are above the immediate leader level; and *members* refers to persons working for an immediate

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leader. This pilot study is the first of its kind in examining the potential relationship between organizational trust and attachment to the immediate leader. This may help identify linkages between employee perception of their leaders, immediate and senior level, and the degree of trust which employees hold in their employing organization. Understanding such linkages may enable leaders at all levels to select those behaviors that subsequently enhance organizational trust.

Theoretical Framework

The organizing framework for the study is Sashkin's theory of organizational trust. Sashkin (1990) defines organizational trust as "the confidence that employees feel toward management and the degree to which they believe what management tells them" (p. 6). His theory integrates three approaches to trust: affective-based, cognitive-based, and combined affect- and cognition-based. Affective-based theories (Gibb, 1965, 1972, 1978; Rempel, Holmes, & Zanna, 1985; Friedman, 1991; and Sabel, 1993) examine trust as rooted in feelings, attitudes, and emotions. Cognition-based approaches to trust (Deutsch, 1958; Barber, 1983; Cummings & Bromiley, 1992; Gabarro, 1978; Hosmer, 1995; Mayer, Davis, & Schoorman, 1995; Rotter, 1967; and Sako, 1995) view trust based on analysis of behaviors. Combined affect- and cognition-based approaches (Cook & Wall, 1980; Golembiewski & McConkie, 1975; Lewis & Weigert, 1985; McAllister, 1995; Ring & Van de Ven, 1992; and Zucker, 1986) function as the name suggests.

What delineates Sashkin's construct is that it employs an organizational level of analysis by looking at the behaviors of *senior and executive level managers as a group*. He asserts that it is the behaviors of leaders at the highest organizational levels that serve to establish a climate of organizational trust (Sashkin, 1996a, 1996b). By engaging in behaviors that strengthen confidence and belief in top management, these senior leaders increase feelings of security (Rempel et al., 1985) and reduce employees' feelings of ambiguity, feelings with both an affective and cognitive component. Ambiguity reduction functions cognitively to improve efficiency, effectiveness, and productivity, and affectively to reduce employee stress (Levin, 1999). Sashkin identifies credibility and consistency as the primary and secondary factors, respectively, of organizational trust (Sashkin & Levin, 2000). The Management Behavior Climate Assessment (Sashkin & Levin, 2000) measures the climate of organizational trust from a behavioral perspective relative to these two factors.

The second theoretical construct involved is attachment. Attachment theory, originally outlined by John Bowlby (1969/1982, 1973, 1980) is a life-span theory of social development. Johnston (2000), examining managers' behavior patterns, characterized attachment theory as an examination of "interaction patterns and accompanying emotions in close, nonbusiness relationships" that are "linked to experienced-based mental models of the self and others" and which "can serve as a conceptual framework for understanding adult relationships" (p. 4). Secure patterns of attachment are characterized by a general propensity to trust; insecure patterns of attachment lead to ineffective use of others in problem-solving situations (Arend, Gove, & Sroufe, 1979; Frankel & Bates, 1990) rooted in an based on a general reluctance to trust.

We found no direct research on the relationship between attachment to an immediate leader and trust of the organization itself. Still, there are some enticing hints that such a relationship may exist. DeVries (1993), for instance, ties trust to leadership in general, noting that: "trust depends on communication, support, respect, fairness, credibility, competence, and consistency on the part of the leader." (p. 176) Cole and Cole (1999) concur, acknowledging trust as key to managerial success and stressing the importance of "cooperative, positive relationships with followers" (p. 3), which are elements of positive attachment. Kim and Mauborgne (1993) link organizational trust antecedents to employees' belief in organizational leaders. Additionally, Krackhardt and Porter (1985) found organizational trust to be positively associated with friendship centrality in the work place, a notion that others (Yoon, Baker, & Ko, 1994) have linked to organizational commitment. Recent research (Lafferty, Wagner, & Levin, 1999) found that differences in organizational trust in groups working under different immediate leaders linked to ethnicity. Considering these studies in conjunction with the clear associations between attachment and interpersonal trust (Korsgaard, Schweiger, & Sapienza, 1995), it is not unreasonable to think that an organizational trust connection is at least worthy of exploration.

Research Questions & Hypothesis

Do organization members' feelings of attachment toward an immediate leader affect their level of organizational trust? Proponents of Sashkin's theory would expect the null hypothesis to be borne out. However, if attachment to the immediate leader affects organizational trust, then we would expect to see H1 supported:

HO: There is no significant difference between organizational trust scores (as measured by the MBCA-Core Version) of members who work for an immediate leader whom they like (positive attachment) and those who work for an immediate leader whom they dislike (negative attachment).

H1: There is a significant difference between organizational trust scores (as measured by the MBCA-Core Version) of members who work for an immediate leader whom they like (positive attachment) and those who work for an immediate leader whom they dislike (negative attachment).

Methodology

Research Design

This pilot study employed a one-shot case study design (Campbell & Stanley, 1963) to determine if there is a difference between organizational trust scores of members having negative attachment to an immediate leader and those expressing positive attachment to an immediate leader. The study used the Management Behavior Climate Assessment – Core Version (MBCA-CV) (Sashkin & Levin, 2000) to assess levels of organizational trust in the two directorates. The determination of positive or negative attachment was based on perceptions of the respective directorate leaders that were informally voiced by directorate members to the researchers over a period of one year.

Sample

The focus population is the military members working in two directorates (Groups) within a military division having seven directorates total. Group 1 (negative attachment) has a total population of nine, of whom eight members participated in the study. Group 2 (positive attachment) has a total population of fourteen, of whom twelve participated. Table 1 shows the demographic and biographic data distribution of the two sample groups. We selected the groups each represented wholly positive or negative attachment to the immediate leader.

Table 1. Demographic/Biographic Characteristics of Sample

Demo/Bio Variable	Frequency/ Percentage		Demo/Bio Variable	Frequency/ Percentage		Demo/Bio Variable	Frequency/ Percentage		Demo/Bio Variable	Frequency/ Percentage	
	Group 1 N=8	*Group 2 N=12*		*Group 1 N=8*	*Group 2 N=12*		*Group 1 N=8*	*Group 2 N=12*		*Group 1 N=8*	*Group 2 N=12*
Gender			Military Rank			Marital Status			Age		
Male	6/75	11/92	Officer	5/62.5	8/67	Married	5/62.5	9/75	18-25	0/0	1/8
Female	2/25	1/8	Enlisted	3/37.5	3/25	Single	2/25	1/8	26-33	0/0	1/8
			No reply	0/0	1/8	Divorced	1/12.5	2/17	34-41	6/50	6/50
									42-49	2/25	3/25
									50-57	0/0	1/8
Ethnic Group			Years in Military			Education					
Caucasian	3/37.5	5/42	< 1 yr	0/0	0/0	High school	0/0	0/0			
African-Amer	3/37.5	2/16	1 to 6 yrs	0/0	2/17	Some college	1/12.5	5/42			
Hispanic Amer	1/12.5	5/42	7 to 12 yrs	1/12.5	0/0	2 yr degree	1/12.5	1/8			
Asian-Pacific	0/0	0/0	13 to 18 yrs	3/37.5	3/25	4 yr degree	5/62.5	4/33			
Other	1/12.5	0/0	19 to 24 yrs	4/50	2/17	Masters	1/12.5	2/17			
			25 to 30 yrs	0/0	3/25	Doctorate	0/0	0/0			
			No reply	0/0	2/17						

Instrumentation

The Management Behavior Climate Assessment – Core Version (MBCA-CV) is a 16-item instrument derived from the MBCA, a 50-item questionnaire that measures organizational trust on four scales: Credibility, Consistency, Relevancy, and Overall Trust. Both versions assess the climate of trust created in an organization by the actions and behaviors of the executive/senior level managers. (Levin, 1999). The Core Version used for this study is comprised of two scales, Credibility and Consistency; each scale is made up of eight items. We selected the Core

Version for two reasons. First, this version is made up of the items from the psychometrically sound full-scale MBCA that factored cleanly in repeated administrations over a wide variety of populations (Sashkin & Levin, 2000). Second, since this was a pilot study, the abbreviated version was deemed sufficient to determine if the study was worth pursuing in broader scope.

Dependent and Independent Variables

The dependent variables for organizational trust are the participants' scores assessing leader credibility and consistency as measured by the MBCA-CV. The independent variable is the immediate leader of each group, toward whom the group members expressed positive or negative attachment.

Biographic and Demographic Variables

Data were collected on seven secondary biographic and demographic variables: gender; ethnicity; age; education; military rank; time in service; and marital status. These data were used to describe the sample and, as needed, to provide control for any intervening variable unrelated to attachment, as well as to eliminate rival hypotheses and possible confounding effects.

Research Procedures

The MBCA-CV, the demographic questionnaire, a one-dollar participation incentive, and a stamped, addressed return envelope were assembled under a cover letter explaining research focus, timeline and instructions for completion (return within three weeks), voluntary participation, and authorization for distribution. All materials were individually packaged and hand-distributed by a researcher to each directorate.

Results

Response rate was 89 percent for Group 1 (negative attachment) and 86 % for Group 2 (positive attachment). Scores for the MBCA-CV scales are interpreted as follows: 5 = very high; 4 = high; 3 = average; 2 = low; and 1 = very low. Table 2 displays the MBCA-CV scores for both groups.

Table 2. MBCA-CV Scores - Descriptive Statistics

Group 1 (*N*=8)	Minimum	Maximum	Mean	Standard Error	Standard Deviation	Variance
Consistency	1.88	4.50	3.61	.3192	.9028	.815
Credibility	2.36	4.50	3.61	.2464	.6970	.486
Both Scales	2.12	4.44	3.61	.2776	.7852	.616
Group 2 (*N*=12)	Minimum	Maximum	Mean	Standard Error	Standard Deviation	Variance
Consistency	1.88	5.00	3.85	.2797	.9688	.939
Credibility	1.88	5.00	3.87	.2524	.8743	.764
Both Scales	1.88	5.00	3.86	.2617	.9065	.822

We noted that MBCA-CV scores for Group 2 (positive attachment) contained a single outlier in each scale that fell outside the lower quartile of both Consistency and Credibility and affected the calculation of means and variances for Group 2 (Fig. 1). Group 1 (negative attachment) had no outliers, but the majority of its data fell below the median.

This small sample size invited using an independent *t*-test to draw statistical inferences about the two samples' means (Aczel, 1999; Leedy, 1996). Significance was set at .05 (95% confidence interval). Results of the independent *t*-tests are at Table 3.

Figure 1. Boxplots Comparing Organizational Trust Scores (Consistency and Credibility Scales Combined) for Group 1 (Negative Attachment) and Group 2 (Positive Attachment)

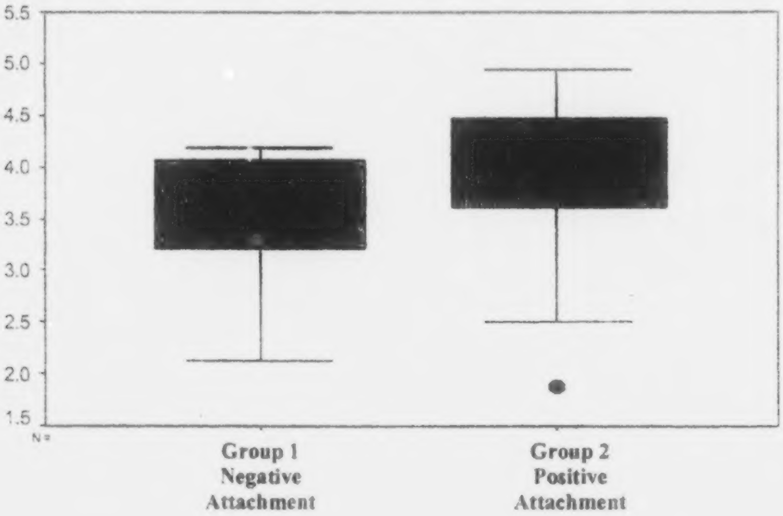
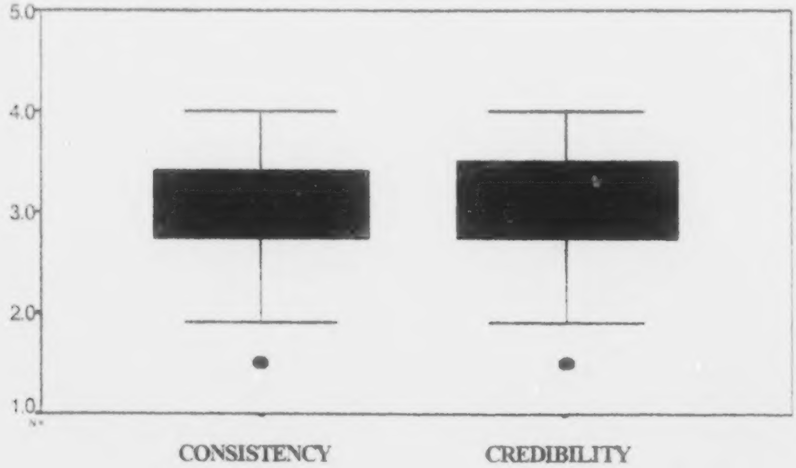


Figure 2. Boxplots Comparing Organizational Trust Scores by Scale (Group 1 and Group 2 Combined*).



* Both outliers occurred in Group 2 (positive attachment)

Table 3. Results of Independent *t*-tests

	Levene's Test for Equality of Variances		*t*-test for Equality of Means						
	F	Sig.	*t*	df	Sig. (2-tailed)	Mean Difference	St. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Consistency									
Equal variances assumed	.015	.903	-.569	18	.577	-.2450	.4307	-1.1499	.6599
Equal variances not assumed			-.577	15.907	.572	-.2450	.4244	-1.1451	.6551
Credibility									
Equal variances assumed	.086	.773	-.694	18	.496	-.2567	.3697	-1.0334	.5200
Equal variances not assumed			-.728	17.785	.477	-.2567	.3527	- .9999	.4866
Both Scales Combined									
Equal variances assumed	.085	.774	-.635	18	.534	-.2496	.3931	-1.0756	.5764
Equal variances not assumed			-.654	16.618	.522	-.2496	.3815	-1.0559	.5567

Independent *t*-tests revealed that there was no significant difference between the groups in MBCA-CV scores for Consistency (p = 0.465), Credibility (p = 0.337) or Both Scales Combined (p = 0.395). Since there were no significant findings, there was no reason to test for effect of intervening variables (demographic or biographic).

Discussion

This pilot study supported the null hypothesis that there is no significant difference between organizational trust scores of employees who work for an immediate leader whom they like and those who work for an immediate leader whom they dislike. Therefore, we can conclude from the evidence here that employees' preference for or aversion to an immediate leader does not appear to influence their organizational trust level. This leads us back to the notion that organizational trust is based on employees' perception of the *senior* leaders' behavior – not the immediate leader – as consistent and credible (Levin, 1999; Sashkin & Levin, 2000). Senior leadership in this organization consists of those leaders above the directorate level, at the division level. It is, therefore, reasonable to assume that the two groups reported the same perception of the climate of trust in the organization (division) based on the division's senior leadership as opposed to the intermediate leadership of the directorates. These results indicate that attachment to an immediate leader – positive or negative – does not significantly influence how employees perceive the behaviors of senior or executive level leadership as a whole.

Limitations of the Study

A major limitation was the very small sample sizes of each group, eight and twelve, respectively. A sample of 30 or more per group would have allowed more comprehensive analysis and testing of the data. Next, the assumption of positive or negative attachment to immediate leaders was based wholly on common perceptions within the division informally reported to the researchers. Future research calls for rigorous empirical measurement of leader-follower attachment concurrent with administration of the full MBCA. It follows that use of the Core Version of the MBCA limited the discriminant potential of the study. It is possible that the 50-item version may have revealed significant difference that the scaled-down version did not reveal. Lastly, the results of this small survey, taken within the very circumscribed and traditional society of a military division, obviously cannot be generalized to other organizations within or outside the military.

Conclusion: New Directions for HRD

Warren Bennis (1997) recently called for "a new kind of leader…[with] the ability to generate and sustain trust" (p. 84) if organizations are to thrive in the 21st century. The construct of organizational trust is still nascent, however, and much research remains to be done if we in HRD are to gain some mastery of its operational nature. This pilot study represents an initial venture into the complex mechanism of organizational trust, leadership, and attachment. Despite its limitations, it indicates enticing avenues for further investigation into attachment and organizational trust, especially given the growing body of research on organizational trust. McMurray, Scott, and Pace (2000) recently noted that studies of this nature "are a contribution to the interconnectedness at the foundational level " (p. 589) of HRD. We certainly recommend expanding this study using larger and more varied samples, the full MBCA, and a psychometrically sound measure of attachment.

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The Importance of Individualism and Collectivism as they Relate to Interpersonal Trust

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This essay examines the theories of individualism and collectivism (I-C), as well as theories of interpersonal trust. From this theoretical perspective a better understanding of the relationship of individualism and collectivism to interpersonal trust is developed. Also this paper suggests that interpersonal trust may, in fact, differ based on tendencies towards I-C and the varying components of trust. Finally, this paper purports several practical implications for global HRD professionals based on the relationship of IC to interpersonal trust.

Key words: Individualism, Collectivism, Interpersonal Trust

The trend of globalization is by no means new to business and industry, however the effects of this trend demand attention from researchers across disciplines of education, business, psychology, sociology, and economics to name a few. As organizations enter new markets, become part of joint ventures, and partake in mergers and acquisitions, the demand for cross-cultural research related to business has grown tremendously. Specifically, the human dimension of this global activity has come to the forefront of such cross-cultural research.

It is this human dimension that interests human resource development (HRD) professionals. Blurring global lines and increases in workforce diversity require HRD professionals to not only be competent themselves, but also to develop the competencies of their workforce in the cross-cultural implications of virtually all workplace issues. Hence the need to study global issues in relation to workforce preparation, becomes relevant for HRD professionals especially those HRD professionals involved in global HRD. International HRD professional assume the responsibility for educating and developing a workforce that crosses many cultural lines. As a result, international HRD professionals and more specifically international organization development professionals become responsible for not only acquiring the knowledge related to cross-cultural workplace issues, but they must also disseminate that knowledge to their workforce through career development, training and development, and organization development. In order to do so, they must first turn to existing research and literature related to cross-cultural workplace issues. Several landmark studies in the past have laid a strong foundation for cross-cultural research. For example, Hofstede's (1980; 1983; 1991) study on the consequences of culture on work related values and Triandis' (1993, 1994,1995, 1998) numerous works related to the constructs of individualism-collectivism (I-C) have provided researchers in many disciplines with the base upon which they have continued to build cross-cultural research (see also, Trompenaars 1993; Hickson & Pugh, 1995; and Smith, Dugan, & Trompenaars, 1996).

Cross-cultural researchers have found that traditional views of workplace dimensions must be reassessed in light of the changes in multinational workforces and globalization of business structures. In the new global environment, the notion of trust is one issue of interpersonal and inter-group dynamics that is critical to the success of multinational organizations. Trust has been shown to contribute to more effective implementation of strategy, greater managerial coordination (McAllister, 1995), cooperative behavior (Kramer, 1999; Mayer et al., 1995) more effective work teams (Lawler, 1995), reduced transaction costs (Bromiley & Cummings, 1995), a basis for commitment to carry out agreements (Schurr & Ozannem, 1985), and is important to individual satisfaction (Anderson and Narus, 1990).

According to Doney, Cannon, and Mullen (1998), the growing attention to the importance of trust and the concurrent emergence of global and multinational workplaces has "highlighted the need for us to understand how trust develops and the ways national culture impacts the trust-building process (p. 1)." They indicate that the societal norms of national culture have established values that guide people's behavior and beliefs (Doney, Cannon, & Mullen, 1998). For example, each culture often has varying views on how and whether or not trust should be established (Triandis, 1994). Earley and Gibson (1998) suggest that to better understand organizational phenomenon and the cultural contexts within which organizations operate the national culture values of I-C must be investigated as antecedents. Trust, as an organizational phenomenon has also been associated with being context-specific (Kramer, 1999). Consequently, this paper will attempt to address the relationship of I-C to interpersonal trust.

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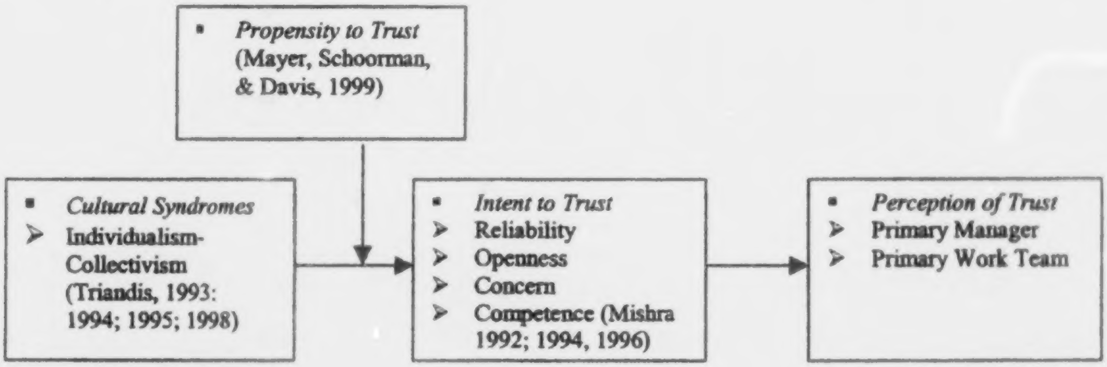
Through examining existing theories of I-C and interpersonal trust and the potential relationship of these theories several implications for HRD professionals will be addressed.

Theoretical Framework

Building on Fishbein & Ajzen's (1980) Theory of Reasoned Action and their decision model, a few trust researchers (i.e., Currall & Judge 1995 and McKnight, Cummings & Chervany 1998) have suggested frameworks for intentions to trust. These researchers purport that an individual's attitudes, beliefs, and cognitions will shape his intention to trust ultimately moderating whether that individual engages in trusting behavior. Similarly, this essay proposes that an individual's cultural syndrome (i.e., their individualist or collectivist nature) serves as an antecedent to their propensity to trust (see Figure 1). That propensity to trust will then moderate their intent to trust based on the individual's knowledge of the trustor's reliability, openness, concern, and competence. Finally, the intent to trust will determine the perception of trust an individual has toward the trustee (i.e., trust in the primary manager or trust in the primary work team).

Figure 1. Cultural Framework for Trust


▪ *Propensity to Trust* (Mayer, Schoorman, & Davis, 1999)
▪ *Cultural Syndromes*
➢ Individualism-Collectivism (Triandis, 1993: 1994; 1995; 1998)
▪ *Intent to Trust*
➢ Reliability
➢ Openness
➢ Concern
➢ Competence (Mishra 1992; 1994, 1996)
▪ *Perception of Trust*
➢ Primary Manager
➢ Primary Work Team

Problem Statement

International organizations are realizing that their workforce is rapidly becoming multinational due to increases in globalization, mergers and acquisitions, and joint ventures (Marquardt & Engel, 1993). As organizations continue to employ workers from different national cultures both domestically and internationally, HRD is now pressed with a new dilemma in improving performance at the individual, team or organizational levels with a global focus. That is, HRD professionals are now being asked to consider effects of national culture (which includes values and beliefs) on their performance improvement initiatives.

In addition, the notion of trust is one interpersonal dynamic that has received a great deal of attention in the organizational sciences recently (Kramer, 1999). While there is research looking at the moderators, mediators, and outcomes of the construct of trust, a large gap exists in the trust literature regarding the antecedents of trust; especially the cultural dimensions as possible antecedents. The limited extant literature on culture as an antecedent of trust inhibits HRD professional's ability to effectively analyze, design, develop, implement, evaluate and manage performance improvement or promote organizational learning in a global arena. That is, a review of literature will provide an understanding to the implications of differences in interpersonal dynamics on a global workforce to continuously improve performance and learning in an efficient and effective manner. Therefore, this essay is guided by the following research question: what is the relationship, in the extant literature, between cultural syndrome and interpersonal trust in the workplace?

Review of Literature

This section will review the extant literature related to culture and interpersonal trust. The literature will be discussed according to the cultural trust model presented above. In the model, it has been purported that culture, specifically the national culture values of individualism and collectivism, serve as antecedents to one's propensity to trust. This propensity to trust then moderates a trustor's perception of trustee in the trustee. The perceptions of trust are formed based on reliability, openness, concern, and competence as components of trust. The outcome then is a perception of trust in the trustee (e.g., manager or team).

Theories on Culture

The literature related to culture and specifically to cultural syndromes is vast. The focus of this literature review will be only on literature that is specific to the national culture values of individualism or collectivism (i.e., cultural syndromes). Much of the cross-cultural literature draws from early works: Kluckholm and Strodbeck's (1961) five value orientations, Rokeach's (1973) 36 values, and Hofstede's (1980) five dimensions of culture. The commonality in these frameworks, and others since then, is the distinction between individualistic and collectivistic value orientations. Hofstede's (1980) five dimensions of work-related values are perhaps the most commonly used in cross-cultural research. In particular, Hofstede's dimension of individualism has been the most commonly replicated and supported dimension (Nicol, 1994).

Mental Programming. Hofstede's (1980) work looked at 116,000 employees of a multinational corporation in 40 countries during 1968 and 1972. He used a factor analysis method to find four main work related values: Power Distance, Individualism, Masculinity, and Uncertainty Avoidance. Later, Hofstede (1989) added the fifth dimension of Long-Term Orientation.

Hofstede (1984) has noted that individuals within a culture are mentally programmed over the years to adhere to certain cultural values. Similar to Triandis' (1995) notion of subjective culture, Hofstede states that mental programs are "developed in the family in early childhood and reinforced in schools and organizations, and that these mental programs contain a component of national culture. They are most clearly expressed in the different values that predominate among people from different cultures (pp. 11)." Hence, the explanation for some cultures being high or low along the four work-related dimensions mentioned earlier can be explained due to the mental programming of that culture.

According to Hofstede (1980) power distance reflects the degree of inequality in a society. Masculinity reflects distinctions in gender roles while femininity reflects a society where social gender roles overlap (Erez, 1994). Uncertainty avoidance reflects the level of threat one feels in uncertain or unknown situations. Finally Hofstede (1980) also identified individualism as a work-related value. Similar to the Triandis (1995) discussion below, Hofstede (1980) relates individualism to patterns of relationships between an individual and the group. Erez (1994) explains the major themes of individualism as being "distinct and separate from the group, having an emphasis on personal goals, and showing less concern and emotional attachment to in-groups...workers [in] individualistic cultures are expected to act according to their personal needs and self-interests (Erez, 1994, pp. 572)." However, Smith, Dugan, & Trompenaars (1996) have further differentiated the notion of individualism by stating that some researchers define:

> the term primarily in terms of continuity of group membership, (e.g., Triandis, 1990), others focus more upon the values governing one's relations with others (e.g., Schwartz, 1992)...Hofstede's (1980) operationalization does separate different priorities in one's interpretation of work-role obligations, but these priorities open a variety of interpretations. (pp. 261)

Over the years Hofstede's (1980) work has been both replicated and refuted. That is, while numerous studies have been conducted to replicate his studies with some degree of reliability, several studies have also not been able to replicate his findings. Most often empirical research has been able to replicate the dimensions of power distance and individualism. Chew (1996) notes that the generalizability of Hofstede's (1980) work is limited, due mostly to the fact that the data were gathered from only one multinational corporation (and its subsidiaries).

As a result of Hofstede's (1980) foundational work and the work of many of his predecessors the terms of individualism and collectivism have come into common place when discussing work-place values as well as cultural orientations. Since some questions have arisen regarding the reliability of his findings, other more recent and comprehensive models of individualism and collectivism have evolved over the years.

Cultural Syndromes. Triandis (1995) provided the most comprehensive explanation of I-C, based on empirical research. Triandis (1995) believes that cultures and countries are relatively equivalent, but he states that countries consist of hundreds of cultures and corresponding subcultures. He defines subcultures as "shared beliefs, attitudes, norms, roles and values found among speakers of a particular language who live during the same historical period in a specified geographic region…[and] are transferred from generation to generation (pp. 6)."

Triandis (1994) has noted that cultures can be broken down into subjective and objective aspects of cultures. Objective aspects of culture are made up of such man-made artifacts as tools, roads, radio stations etc. whereas the subjective aspects of a culture are made up of the categorizations, associations, norms, values and roles (Triandis, 1994). According to Triandis (1994), the analysis of subjective culture allows for an understanding of how people perceive and view their social environment. When the pieces of the subjective culture are constructed around a central theme then there is a "cultural syndrome" (Triandis, 1995). Hence, Triandis views both individualism and collectivism (IC) as the central themes around which a culture can be constructed. An individualistic central theme is one in which the theme includes the idea that individuals are the unit of analysis and are autonomous. A collectivistic theme is one in which the theme incorporates the notion that groups are the unit of analysis and individuals, in Triandis' words, are "tightly intertwined parts of these groups (pp. 6)." Hui & Triandis (1986) conducted a study of social scientists from various parts of the world asking them to respond to a questionnaire, as they believed an individualist or collectivist would respond. According to Hui & Triandis (1986) the responses converged suggesting that there is consensus about the meaning of these dimensions.

While these constructs are often presented as being at two ends of the cultural spectrum, Triandis (1995) states that in actuality all individuals have both cognitive tendencies and it is through both the subjective and objective environments in which we find our upbringing that we have more of one tendency in comparison to the other in any given social setting. In addition, Triandis (1995) has noted that the notions of individualism and collectivism are supported by studies of beliefs, attitudes, and values. It is this specific strand of cross-cultural literature (i.e., looking at beliefs, attitudes, and values) that this essay attempts to discuss in terms of antecedents to trust.

Contexts in Individualism-Collectivism. Tendencies toward individualism or collectivism are often context specific (Matsumoto, Weissman, Preston, Brown, and Kupperbusch, 1997). Triandis (1988) indicates that differences in individualism and collectivism differ across social context. Matsumoto et al. (1997) also note that while attitudes and values can transcend specific situations there are still substantial individual and group differences that exist. Hence, for the purposes of this essay only the workplace context will be addressed. The workplace context is one in which there is likely to be more "tightness", as Triandis (1995) has described (pp. 87). Therefore, this tightness will *likely* lead work place relations to a pattern that is most common to that specific national culture.

In-groups and Out-groups. In discussing the values or cultural syndromes of individualism and collectivism the terms "in-group" and "out-group" must be further clarified. According to Triandis (1995), in-groups refer to those groups for whose "welfare a person is concerned, with whom that person is willing to cooperate without demanding equitable returns, and separation from whom leads to anxiety (pp. 9)." He goes on to describe in-groups as having similar characteristics and for whom a person feels a "common sense of fate." In contrast, out-groups are described by Triandis (1995) as "groups with which one has something to divide, perhaps unequally, or are harmful in some ways, groups that disagree on valued attributes, or groups with which there is conflict (pp. 9)."

Membership within in-group and out-groups will impact the level of trust between the trustee and the trustor. According to Hofstede (1991) trusting relationships must be first established before conducting business with individuals from collectivistic cultures. However, trust building in such collectivistic cultures is likely to take a long period of time, yet once they are formed such relationships are lifelong (Triandis et al., 1988). According to Shaffer and O'Hara (1995), "as trust is a necessary condition for in-group membership and slow to achieve among members of low individualistic countries, first-time relationships with service providers such as merchants, policemen, government bureaucrats, etc. are probably seen as out-group interactions (pp. 6)." They go on to state that, "individualistic societies probably have higher levels of interpersonal trust, particularly during initial encounters, when compared to their collectivistic counterparts (Shaffer and O'Hara, 1995, pp. 6)."

Given this review of extant literature related to individualism and collectivism. It becomes clear that an individual's individualistic or collectivistic tendencies are programmed or formed based on their subjective culture. Hence effecting their propensity to trust. The following section will review the current trust literature looking specifically at the components of trust and propensity to trust.

Basic Assumptions of Trust. Basic assumptions exist regarding the nature of trust in the current trust literature. Several researchers have noted that the notion of trust is based on (1) the willingness of a trustor to be vulnerable to the trustee; (2) the acceptance of risk on the part of the trustor towards the trustee; (3) the need for interdependence between the trustor and the trustee; and (4) the idea that trust is a multidimensional level construct (Hosmer 1995; Mishra 1999; Mayer, Davis & Schoorman 1995, Nicol 1994; Rousseau, Sitkin, Burt, & Camerer, 1998). All of these assumptions are predicated on the notion that the trustee will not behave opportunistically, will not take unfair advantage of a situation, has something that the trustor wants or needs and that the level of trust can vary in a given situation or context as well as in terms of the relationship between the trustor and trustee (i.e., manager-subordinate, co-worker, child- parent etc).

Foundations of Trust. No unifying definition of trust currently exists as the concept stems from varying fields of study and relies heavily on the assumptions of the authors. Trust is a multidimensional and multidisciplinary concept for multi-level relationships (Rousseau et al., 1998). Hosmer (1995) conducted a thorough review of the trust literature in an attempt to identify an appropriate definition of trust through the lenses of various fields of study (e.g., economics, psychology, sociology, and management theory). According to Rousseau, et al (1998), economists tend to view trust as calculative or institutional while psychologists perceive trust in terms of attributes of the trustor and trustee based on internal cognitions. Still yet, sociologists observe trust to be part of social relationships among people or institutions.

Hence, in order to clearly understand the basis of trust in terms of extant literature many of the varying perspectives must be examined. Through his review of literature Hosmer (1995) identified five different perspectives from which trust can be viewed: individual expectations, interpersonal relationships, economic exchanges, social structures, and ethical principles. The notion of trust in terms of interpersonal relationships will be the focus of this paper as trust in the context of the workplace most specifically relates to this strand of literature.

Hosmer (1995), defines trust in terms of interpersonal relationships by first looking at Zand's (1972) definition suggesting that trust was an "individual's willingness to increase his or her vulnerability to the actions of another person whose behavior he or she could not control (in Hosmer, 1995, p.3)." Thus, the decision to trust remained that of an individual, however, the consequences of that action were now dependent on the actions of another person (Hosmer, 1995). Hosmer (1995) also notes, Butler and Cantrell's (1984) addition of inequality in position when defining trust in terms of interpersonal relationships. They proposed five components of trust and the degree to which individuals differed on these characteristics depended on their position (e.g., superior-subordinate). Butler and Cantrell's (1984) five components are as follows: (1) Integrity—the reputation for honesty and truthfulness on the part of the trustee, (2) Competence—the technical knowledge and interpersonal skill needed to perform the job; (3)Consistency—the reliability, predictability, and good judgement in handling situations; (4) Loyalty—benevolence, or the willingness to protect, support, and encourage others; (5) Openness—mental accessibility, or the willingness to share ideas and information freely with others (In Hosmer, 1995, Butler and Cantrell, 1984).

Hosmer (1995) goes on to note the later additions by Cantrell (1991) and that by Ring and Van de Ven (1992) that trust goes beyond simple benevolence (in the loyalty component) but is really the confidence of the trustor that the trustee will behave in a manner that will not harm the trustor and that will look out for the good will of the trustor, respectively. Finally, Butler (1991) states that "the literature on trust has converged on the beliefs that (a) trust is an important aspect of interpersonal relationships, (b) trust is essential to the development of managerial careers, and (c) trust in a specific person is more relevant in terms of predicting outcomes than is the global attitude of trust in generalized others" (Hosmer, 1995, p. 4)."

Similar to Butler and Cantrell (1984), Mishra (1992; 1994; 1996) operationalized trust to include the following four components: (1) Competence—confidence in the trustee's abilities to perform up to expected standards; (2) Reliability—expectation of consistent behavior over time, especially between words and actions; (3) Openness—perceptions of openness and honesty in the trustee (especially) in terms of communications between the trustor and the trustee; (4) Concern—concern for the welfare of others.

Like Butler and Cantrell (1984), Mishra included openness and competence components in his conceptualization of trust. While Butler and Cantrell distinguished openness from integrity, Mishra included the notion of honesty (i.e., integrity) into openness. Whitener et al. (1998) include this openness dimension in their communication component where accurate information is provided, explanations are given for decisions, and the trustee has a sense of openness with the trustor. The unique aspect of Mishra's work is that his components of trust resulted from interviews he conducted with 33 executives in the automotive industry regarding trust issues in crisis situations. The strength of his empirical findings comes in the alignment of his components with existing theoretical frameworks (Butler & Cantrell, 1984). His concern component corresponds with Butler's benevolence category. Whitener et al. (1998) see the concern component as consisting of three different parts: (1) consideration and sensitivity for employees needs and interests, (2) protecting employee interests, and (3) refraining from exploiting others for one's own benefit or interest. Finally, Butler and Cantrell's idea of consistency and McKnight et al.'s (1998) predictability trust belief are encompassed in Mishra's reliability component. This component looks to the consistent, predictable and reliable behavior of the trustee. Much like Mishra's components and Butler and Cantrell categories McKnight et al. also posit that the trustor's intention to trust relies on the following trusting beliefs: benevolence, competence, honest, and predictability.

Similarly, Mayer, Davis, & Schoorman's (1995) definition of trust includes the notions of ability, benevolence, and integrity. Their definition makes the assumption that when embarking in a "trust" relationship there is inevitably a degree of vulnerability by the trustor towards the trustee. Mayer et al. (1995) have also noted that in order to adequately assess the degree to which a trustor is willing to trust a trustee both the trustor's "propensity to trust and the trustor's perceptions of the trustee's ability, benevolence, and integrity must be discerned (p. 10)." Therefore, Mayer et al. (1995) view this propensity towards trust as an antecedent to trust.

While some researchers have found disposition to trust to be a significant antecedent (McKnight et al. 1998; Mayer et al., 1995) other researchers have indicated that disposition to trust is either an assumption that has yet to be proven (Holmes, 1991) or at the very minimum is not a precise determinant of trust (Johnson-George and Swap; 1982). Few authors (Mayer et al., 1995; McKnight et al., 1998) have cited the notion of a propensity or disposition to trust as an antecedent to trusting behavior. McKnight et al. followed Fishbein and Ajzen's (1980) theory of reasoned action for decision making as a framework for trusting behavior. They posit that attitudes and perceived norms lead to behavioral intentions that in turn will lead to actual behaviors. Similarly, McKnight et al.'s model of initial trust formation highlights a disposition to trust as an antecedent followed by cognitive processes as moderators leading to trusting beliefs (i.e., beliefs regarding the trustee's benevolence, competence, honest, and predictability). Based on the trustor's beliefs an intention to trust is established. Hence, in this model the actual trusting behavior is viewed as an outcome (as suggested in the theoretical framework above).

Culture and Trust. Few studies have shown an strong relationship between culture and trust. Shaffer & O'Hara (1995) looked at the effects of country of origin on trust and ethical perceptions of legal services. Shaffer and O'Hara (1995) found that individuals from low individualism countries will express less trust of a service professional than persons from high individualism countries. Consequently, Shaffer and O'Hara (1995) have found that trust varies along low and high individualism countries.

Shaffer & O'Hara (1995) have found that high power distance and high collectivism show a strong distinction between in-groups and out-groups. They go on to state that in these countries trust is essentially based on in-group membership. Hence, in "collectivistic countries in-group membership and ultimately trust may take longer to achieve... In individualistic countries business is conducted with whole companies, in collectivistic countries business is conducted with individuals (who are members of one's in-group; therefore the relationship is then with one person and not the entire company p. 13)."

Similarly, Yamagishi & Yamagishi (1994) found that Japanese citizens reported lower levels of trust compared with their American counterparts. This appears to be a rather surprising finding given the expectation that Japanese culture is often identified with "close, stable, long-term social relations (Kramer, 1999, p. 10). However, Yamagishi & Yamagishi (1994) note that in actuality Japanese culture can be distinguished by high stability whereas American culture does not have a comparable sense of stability and social uncertainty. Therefore, when in a situation of instability Americans are more concerned with reducing the stability and uncertainty through personal knowledge of the trustor as well as reputational information whereas the Japanese rely on assurance of predicted stability of interpersonal and interorganizational relationships (Kramer, 1999).

Nicol (1994), in his study of American and Mexican students found that trust is in fact a multidimensional concept that serves as a foundation for assessing cultural influence on trust. Nicol found the application of the trust concept "to differ systematically along cultural lines (p. 101)." Specifically, he found that the more collectivist culture would placed a higher emphasis on the relationship dimension of trust, while the more individualistic culture placed a higher emphasis on the institutional agent and caution dimensions of trust.

Some criticism exists regarding the empirical verification of trust as a culture level construct. Strong & Webber (1998) investigated the culture dimensions of trust, using Hofstede's (1980) framework, but they failed to find significant differences in trust between cultures in an international study of 122 business leaders; they purport that culturally determined perceptions of trust are simply an "artifact of the academic research community" (p. 1). Still yet, McAllister (1995) differentiated between affect and cognition based trust as well as hypothesized that cultural-ethnic similarity could be antecedents to cognition based trust. However, ethnic similarity was not found to be associated with cognition-based trust.

McAllister's (1995) findings along with Strong & Webber (1998) bring to bear a controversial stance in the trust literature. Where a few researchers over the years have found empirical relationships between trust and culture, Strong & Webber's (1998) and McAllister (1995) findings seem to go against the conventional grain of cross-cultural studies that have found relationships between national culture values and interpersonal relationships. Yet questions arise regarding the construct and measures utilized for both culture and trust by these researchers. As such, the model and constructs presented for trust and culture in this essay suggest that culture will in fact have a relationship to perceptions of trust in the workplace. Hence, implications for future research relate specifically to the need for establishing this relationship between culture (i.e., tendencies toward individualism and collectivism) to trust in context of the work place.

Discussion and Implications

Understanding the relationship of individualism and collectivism to interpersonal trust in the workplace has several implications for HRD professionals. First, as HRD professionals tend to serve more and more as change agents and internal consultants within the organization they will find that relationship building is integral in their day to day communications. Consequently, trust is foundational in those relationships. HRD professionals themselves will have to be cognizant of their workforce's tendencies towards placing emphasis on varying components of trust based on culture. Nicol (1994) suggested that individuals with collectivist tendencies will place a higher emphasis on relationships. In addition, as Shaffer and O'Hara suggested, in-group membership is key to individuals with collectivistic tendencies. Thus, HRD professionals will have to identify the implications of these findings into their day-day roles. The success of each role that HRD professionals find themselves performing (e.g., instructional designer, trainer, change agent etc) relies on the HRD professional's ability to establish trust in their relationships with both internal and external clients. The blurring global lines and multinational workforces existing in business and industry today further illustrate the need to apply these principles or findings. That is, studying the cultural dimensions of employees in a multinational organization is an attempt to make the best multinational uses of varying employee disposition (Davison, 1994).

Second, therefore, HRD will then need to take into consideration such culturally based preferences when developing project teams, working in temporary work teams as well as when dealing with global managers. Team development and management development will need to include awareness around such varying cultural tendencies in relation to trust. This awareness can potentially be brought to bear in expatriate training, education around internal communication, as well as the aforementioned team and management development workshops, especially with those teams and managers functioning at the global level.

Finally, changing organizational structures, in particular the rise in virtual work spaces and teams, joint ventures, and mergers and acquisitions require HRD professionals to incorporate principles of culture. Specifically, they must turn to the cultural variances in trust when looking to establish and maintain trust in these dynamic organizational forms and settings, especially in a global marketplace. Schurr and Ozannem (1985) suggested trust leads to "a constructive dialogue and co-operation in problem-solving, facilitates goal clarification, and serves as a basis of commitment to carry out agreements (pp.9)." Kramer (1999) noted that trust must be conceptualized as a social orientation toward other people and toward society. Consequently, HRD professionals must understand the cross-cultural implications of trust both within and between organization, especially in such unstable environments as that of recently merged or acquiesced corporate cultures. In order for such partnerships to be successful employees must feel a sense of trust with their work group, their manager, and the organization as a whole. In attempting to maximize performance and human potential of such employees, HRD professionals will need to be knowledgeable of the relationship between culture and trust amongst work related values; for it is these work related values that will ultimately influence the productivity and performance of an organization.

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Performance on Multiple Levels: Seeing the Forest *and* the Trees

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This is an innovative session exploring performance at multiple levels in organizations. In addition to the organizing team, the following scholars and practitioners have graciously agreed to participate by serving on an expert panel and facilitating group discussion—Roger Cude, Jill Hough, Victoria Marsick, Hallie Preskill, Darlene Russ-Eft, and Richard Swanson.

Keywords: Performance, Multilevel, Theory

HRD professionals have effectively used systems theory to build a body of knowledge related to individual, team, and organizational learning and performance. However, our knowledge of the complex relationships that link these processes across organizational levels remains limited. In a paper presented at the 2001 AHRD Conference, "A Multilevel Theory of Performance: Seeing the Forest and the Trees," Susan Fisher reviews the literature on multilevel theory-building and the need for multilevel theories in the study of organizations. Multilevel theory is presented as a means both to explore the "meso" regions of organizational activity that lie between the individual and organizational levels and to integrate views of performance from micro and macro disciplines. It is the focus on the meso region with its myriad forms of complex social interaction that will be explored further in this innovative session. Exploring potential applications for a multilevel performance frame in this interactive format is likely to add further insight into the usefulness of this approach. Participants will be encouraged to grapple with the practical issues inherent in multilevel thinking and gain a hands-on understanding the of purpose of multilevel theory.

The idea that the study of organizations is inherently multilevel is not new (e.g., Behling, 1978; Coleman, 1986; Rousseau, 1985; Simon, 1962). The development of multilevel theory and research, however, has been slow to evolve. In an introduction to a special section in *Academy of Management Review* on multilevel theory, Klein, Tosi, & Canella (1999) suggested that the complexity of multilevel approaches has slowed their development. The theory summarized in Fisher's conference paper is one of the few attempts to capture the true complexity of organizational performance by incorporating the proposals of contemporary multilevel theorists. The resulting theory is so complex that it brings into question the usefulness of such approaches and leaves open the question of whether the benefits of multilevel approaches outweigh their inherent difficulties.

This session offers the opportunity for HRD scholars and practitioners to consider this important and timely question in an atmosphere of collective discovery. Hopefully the ideas generated from this session will also point to specific areas of the theory that might be carved out for testing through empirical research.

Session Objectives

The session will be led by a team of three organizers. In addition, a panel of five experts representing scholars and practitioners from multiple disciplines have agreed to facilitate group discussions among the participants and serve as panel members. Equal emphasis will be placed on theory, research, and application to ensure that the interests of all participants will be addressed. The session is designed around five objectives:

- To raise participants' awareness of multilevel approaches to the study of organizations.
- To create an opportunity for exploring the potential of multilevel frames when dealing with organizational performance issues.

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- To provide participants with ideas for using multilevel theory in HRD applications and emphasize the importance of grounding practice in theory.
- To provide the organizers with feedback on the usefulness of the theory.
- To engage in interactive learning.

Session Content and Structure

The session is designed in five parts: (A) introduction and group discussion; (B) group discussion debriefing; (C) linking discussion to multilevel thinking; (D) eliciting expert opinion; and (E) summarizing learning. The objectives and design of each of these sections follows.

Part A

Facilitator: Darren Short

Objectives:

- To describe the session structure and introduce the organizers and guest panel members.
- To introduce a case study developed for the session which outlines a complex organizational performance issue such as might be encountered in a real organzation.
- To divide the participants into discussion groups and assign facilitators (guest panel members).
- To allow the groups to discuss how they would approach the performance issues as represented in the case from specific perspectives including process, learning, individual, team, and organization.

Length: 30 minutes.

Mechanism: Brief presentation by main session facilitator followed by group discussion.

Content: Case study outlining a real-world organizational performance problem

Part B

Facilitator Darren Short

Objectives:

- To share the insights on the specific case performance issues emerging from discussion groups.
- To develop evidence of the multilevel components of organizational performance as they emerge from the case.
- To elicit examples of how participants focus on different levels when considering organizational performance.

Length: 20 minutes

Mechanism: Informal presentation by discussion group representatives. Facilitator to summarize content on flip chart.

Content: Ideas and examples developed in participant groups.

Part C

Facilitator: Susan Fisher

Objectives:

- To highlight the multilevel nature of organizational performance as exemplified in group views of case issues.
- To introduce a multilevel theory of performance and demonstrate how it might be applied to issues emerging from the case.
- To allow participants to experience how links from theory to practice may be useful in dealing with performance issues.
- To generate examples of how the multilevel theory of performance might be applied and tested.

Length: 20 minutes

Mechanism: Presentation by facilitor using examples elicited from group discussion to outline a multilevel theory of performance.

Content: The summarized ideas generated by the participant groups and illustrations from Fisher's paper.

Part D

Facilitator: Catherine Sleezer

Objectives:

- To elicit expert feedback on multilevel approaches to organizational performance in general.
- To gain further insight into usefulness of multilevel theory.

Length: 15 minutes

Mechnanism: Panel discussion—informal sharing of ideas by panel of guest experts.

Content: Guest panelists will have received supporting material prior to the session. Participants will receive handouts summarizing Fisher's framework.

Part E

Facilitator: Darren Short

Objectives:

- To summarize learnings as they have emerged from the session.
- To elicit suggestions as to where these new insights might lead.

Length: 5 minutes

Mechnanism: Facilitated discussion

Content: Material elicited during the session.

Outputs

To support the learning expected to take place in this session, the organizers have planned for two types of output. First, the paper on which this session is based will be revised to include a section summarizing the main learning points from the session, the reactions of attendees, and new insights into the usefulness of multilevel theory as generated by participants. The revision will be submitted to *Human Resource Development International*. Second, the organizers will establish a network of interested participants from the session to take forward their shared interest in multilevel approaches to organizational issues. The network born of this session will share e-mail addresses so that a listserv may be generated for members to report on progress in multilevel performance research and share new articles and books on multilevel approaches. In addition, there may eventually be sufficient interest to propose an *Advances* issue on multilevel applications in HRD. If this possibility materializes, the session organizers will assist in identifying possible chapter authors and the areas of interest within the AHRD community.

Contribution

The session organizers have been wrestling with the issues related to multilevel views of organizational performance for the past year and look forward to the opportunity to share them in an interacitve session that emphasizes learning through discovery. We also hope that the experience will make a contribution to HRD in the following four ways: (1) by raising participants' awareness of multilevel approaches to the study of performance; (2) by demonstrating a need to expand our frame of reference and integrate knowledge from allied disciplines such as social psychology and organization theory; (3) by creating a forum for exploring the theory-to-practice link that HRD scholars have been calling for (e.g., Swanson, 1999; Holton, 1999); and (4) by developing a new network for sharing knowldege and research related to the application and testing of multilevel performance theories

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Virtual Executives: A Paradox with Implications for Development

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This article derives from a case study exploring power. Members of a virtual team describe power differently for situations inside versus outside the team. Inside, the team's collaborative power innovates solutions. Outside, the virtual team fails to survive continuous organizational conflicts. These conflicts suggest virtual teams are not supplanting other forms of organizing and that executives operate in multiple, co-existing organizing systems. Accordingly, this article poses issues for further research on and practice with virtual organizing and executive development.

Keywords: Virtual Organizations; Power; Executive Development.

If virtual forms of organizing are replacing other forms (Duarte & Snyder, 1999; Fisher & Fisher, 1998; Grenier & Metes, 1995; Lipnack & Stamps, 1997), is power still defined as the ability to allocate resources (Pfeffer, 1981, 1992a & b)? This study interviewed executives in a large corporation to explore their understanding of power based on their experiences in a virtual team.

Virtual Teams

A virtual team is a geographically dispersed group of people who rely primarily on electronic communication to accomplish their common purpose (Lipnack & Stamps, 1997). While other business teams break down boundaries of departmentalization, chain of command, and hierarchy, virtual teams do that and more. They break down the boundaries of space and time (Doheny-Farina, 1996; Finholt & Sproull, 1990; Hiltz & Turoff, 1993; Jarvenpaa & Leidner, 1998; Lou, 1994; Mankin, Cohen, Bikson, 1996; Marca & Bock, 1992). In addition to changing relationships electronically (Fisher & Fisher, 1998; Grenier & Metes, 1995; Miller, 1996; Schrage, 1990; Zuboff, 1988), virtual organizing promises to be egalitarian (Rheingold, 1994).

While the expectation is that power can be shared in virtual environments, there is little empirical evidence. However, there is some limited evidence about power from the literature on teamwork.

Teamwork & Power

Clegg's work is directly concerned with clarifying power as a concept in organizational science (1989; 1994) and empirically identifying power at work in organizations (1990). However, he does not focus specifically on teams, nor does most of the teamwork literature isolate organizational power as a variable.

Teamwork literature focuses on dynamics inside teams (Banet, 1976; Dechant, Marsick & Kasl, 1993; Gersick, 1988; 1989; Gersick & Hackman, 1990; Guzzo & Salas, 1995; Hackman, 1986a & b; 1990; Hackman & Oldham, 1980; Kanter, 1979, 1983; Katzenbach & Smith, 1993; Lewin, 1947; Pinto, Pinto & Prescott, 1993; Tuckman, 1965; Wall, Kemp, Jackson, & Clegg, 1986; Walton & Hackman, 1986). There are some exceptions (Ancona & Caldwell, 1987) that consider the outside organization's perception of a team as powerful. In addition, considering teams as open systems (Ancona, 1990; Ancona & Caldwell, 1992; Gersick, 1991) reveals the power of environmental organizing dynamics.

This relative lack of focus on power and teams may stem from the paradoxical nature of power and teams (Smith & Berg, 1987). Teams can liberate power by breaking down external structures (Katzenbach & Smith, 1993), and control power by maintaining internal, latent hierarchies (Brooks, 1994). Teamwork can be both empowered by external authorities (Spreitzer, 1995) and dis-empowered by internal peer pressures (Barker, 1993). This study sought to ascertain how virtual team members themselves understood power.

Research Questions & Methods

This study was driven by three questions: does power function in virtual teams. If so, how? How do virtual team

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members make sense of power? In order to try to understand both the ambiguous notions of power and the ephemeral nature of working virtually, I designed a case study (Miles & Huberman, 1994) of a virtual team.

I proposed to engage in iterative, qualitative interviewing with the virtual team members (Seidman, 1991). I selected a team of powerful executives in a Fortune 50 company based in the United States.

The Virtual Team

The team selected for this study had only four members but each held positions at a fairly high level, reporting to Vice Presidents and General Managers. Two team members had been with the company less than three years and two had more than twenty years with the company. All had worked in large corporations for more than twenty years. These team members knew corporate strategy and shared a mission that provided cohesion to the team (Lipnack & Stamps, 1997).

The team's mandate came from the company's Chief Executive Officer who served as the project's sponsor. The team's assignment was to solve a complicated, persistent, strategic problem with a long, difficult history of resistance to a solution.

The team in this study is distinguished from other electronic groups in the company by three characteristics. First, this team was not the exclusive method for organizing work; it was crosscutting (i.e. composed of representatives from various departments). Second, the virtual team was not the only assignment; members also held regular jobs with executive management and strategic responsibilities. Third, the team's purpose and the problem to be solved straddled two different businesses, each over $2 billion in size, each with different histories, priorities, and markets.

The complexity of the team's organization and its assignment indicated that it was breaking down several forms of organization. At the same time, this virtual team co-existed with on-going structures that were a complex mixture of line and traditional staff functions (marketing, budget, etc.), chain of command, and unique staff functions involved with proprietary technologies.

Approach

To understand the team's situation, I interviewed each member at least three times over a nine-month period and traveled to three locations to record most sessions in person. The interview approach was chosen because interviews provided opportunities for team members to share the language by which they make sense (Weick, 1995) of power and because this approach was used in empowerment research (Bartunek, Lacy & Wood, 1992).

The decision to interview on more than one occasion was motivated by accepted practice in interpretive studies and to mitigate moodiness and the idiosyncratic nature of phenomenological reports (Lincoln & Guba, 1985; Seidman, 1991). Multiple interviews provide the means to check for internal consistency on the part of the participant and among participants.

In this study, interviews provided a means to check emerging patterns with the participants in an iterative, on-going basis, as I traveled from one to another. Further, the rapport I developed with the participants over the occasions of the interviews provided an opportunity to hear their deep, personal thoughts, their 'inner voice,' as opposed to a 'public' voice (Seidman, 1991).

The first interviews were brief, introductory and procedural. The second interview sessions ranged from one to three hours in length with each member of the virtual team. The third round of interviews ranged from one to one and a half hours and were used to confirm or disconfirm emerging themes, clarify questions on organization and technology, and understand sequences of events and major players. The third round provided an opportunity to go deeper and to get more of the participant's own language in explaining phenomena. The interview format was constantly adjusted to pursue confirmation of data.

The participants were "proactive in defining their own issues in relation to the investigation" (Cassell & Symon, 1994, p. 6). For example, while they answered the questions defining teamwork succinctly, they went on at length in response to the questions about memorable moments and examined situations outside the team. Because the interviewees had energy and interest for discussing events outside the team, and because they reported no power issues within the team, the interviews quickly turned into opportunities to spontaneously 'follow the data' in an iterative fashion (Miles & Huberman, 1994) by asking follow-on questions to pursue the notions of power and conflict in the stories of events and forces outside the team.

The final two interviews were redundant, in many respects. For example, 'conflict' stories were repeated from previous rounds, scenarios were re-stated depicting the difficulties the larger organization was experiencing in grappling with the extensive nature of the problem to be solved, and the merits of the team's solution were reaffirmed. The last two interviews, while providing no new information, did confirm that I had reached the saturation point (Glaser & Strauss, 1967) where no additional 'data' is provided.

To reduce bias, transcripts were independently transcribed. In addition, my own coding was compared with coding by two other independent researchers using a coding structure designed to capture definitions of power and narratives of sense making about power and teamwork. Inter-rater reliability was eighty percent.

Researcher Bias

In selecting this virtual team, my preference for a cohesive, high-level group biased the study towards organizational issues of power. I wanted a virtual team that would know strategic intent and be empowered so that they could describe power to me in their own words.

As Duke (1976) says, when the topic is power, the researcher is ensnared by an orientation to power. To compensate for this trap, I employed several methods to establish trustworthiness (Lincoln & Guba, 1985), including the crosschecks on coding and additional interviews on findings with several corporate members outside the virtual team.

Delimitations

This study focused on one virtual business team. This team is not co-located. It has members who work for different organizations within a very large corporation.

Limitations

This study necessarily employed retrospective sensemaking (Weick, 1995). Participants told their own stories of situations as they tried to make sense of power.

This is one case. It was designed to try to understand some of the phenomena at work with a virtual team and power. It is neither feasible nor desirable to generalize to all virtual teams. However, findings can be explored for further study.

Significance

This study contributes to the literature on virtual teams by capturing the language by which virtual team members make sense of their work and power. Because the team members of this virtual team are also corporate executives, these findings suggest some significance for education and development of executives in virtual organizations and, therefore, are of significance to researchers and practitioners in Human Resource Development.

Findings

There are two key findings from this study. The first is that there is power in collaboration. This virtual team found a solution to a complex problem of strategic significance that the company had failed to resolve in two previous efforts. The team employed systems thinking and visual representation.

The second finding is that the virtual team members describe power as *outside* the team. This virtual team was frequently in conflict with pre-existing organizing structures, despite corporate policies of empowerment and despite having the CEO as a project sponsor. Participants saw real power as those activities outside the team disrupting the team's effort. The next sections provide more detail on these findings.

The Power of Collaboration

The virtual team worked together for approximately a year to develop a solution and present that solution to the organization. During that period, they twice met face-to-face. Subsequently, they communicated primarily by phone, occasionally by email, and by televised meeting technology with others outside of the team. They were guided in their deliberations by four management practices: empowerment, teamwork, a corporate problem solving process, and systems thinking. Each of these is discussed below.

Empowerment. Empowerment is an official (formal) approach to work in this company. Posters extolling the benefits of empowerment are on walls throughout the organization, including the offices of top-level executives. Employees are trained on its features and uses while interventions are provided to managers and teams to enhance empowerment practices.

Teamwork. Use of teams is part of the culture for accomplishing work. A participant said: "*There's a real expectation that people do work in teams.*" Another felt: "*Some issues are best -- are only -- addressable by a combination of people.*" One claimed: *It would be hard for me as a manager to imagine what I can do alone."* In addition, teamwork was fundamental to this virtual team's mission. Members solicited commitment from those outside the team by communicating the team's shared perspective. One participant said: "*Why our virtual team is here is to try and make sure that we all speak with a consistent voice and that we know how to represent this stuff."*

Problem Solving. The team members employed an official problem solving process whose roots are in a rewarding history of quality improvement efforts. The process is required training for all employees within their first 90 days with the company. The dominant assumption of this process is that solutions can be engineered; that progress is linear and can be "packaged" into discrete increments. In discussing the problem solving process, the team leader used the term '*shared language*' and others described it as the '*culture*' or *'the approach.'*

Systems Thinking. The virtual team devised a systems drawing that represented its solution in a holistic manner. "*It's a different mental model, a different systems model."* The team felt good about its concept. One said: "*That is an impelling power, this excitement that's generated because you're on the right track for a change.*" And they believed in the power of their design to convince others. "*So any kind of system you can envision is incorporated by this particular picture." "So everybody ... is really thrilled now that we have one systems model that we can talk to.* "*They can talk to customers with this. It communicates.*"

In addition to their pride in their product, the team members were proud of their process. They respected each other and believed they had a good balance of expertise and temperament in the team. Their conflicts with the outside organization strengthened the team. "*Through thick and thin, this little group has always come together.*" The team does this with "*mutual trust, mutual respect and appreciation for the strength and weaknesses of each other and confidence, confidentiality.*"

The team persisted, the members claimed, because they felt committed to their purpose: solving a problem. This commitment was so strong that one participant declared that it is not technology that creates virtual teams but empowerment. As proof of their beliefs, the team won an award for excellence. Perhaps that is why the team had such difficulty making sense of the lack of acceptance in the organization for their ideas.

The Power of Conflict

The virtual team members felt plagued by politics outside the team. They could not reconcile the organization's rhetoric about empowerment with their lived experience when they were instructed to change reports about their work, left out of important meetings, and had ideas misrepresented to key decision makers.

What were the sources of these conflicts? Some team members cited the different histories and purposes of the two businesses involved. One team member characterized the conflicts as a choice between long term planning and positioning for the market versus short-term sales and profit goals. Each of these is not an atypical corporate phenomenon. However, this company preached empowerment and the team believed that the conflicts were evidence that empowerment was not working. *"They beat up my message pretty well and it really impacted the credibility of the whole [name of project] initiative."* Empowerment was further eroded by the corporation's project management system that served to institutionalize conflicts for the virtual team.

The corporation's project management process initiates and tracks projects and is predicated upon a mode of thinking that expects periodic progress reports about discrete solutions. Often, progress reports are given by persons who are not members of the project teams but higher in the hierarchy or outside the chain of command in staff assignments. This process misrepresented the virtual team. "*So basically we did the work to put together the strategy and that's not what got presented and that's not what was approved."*

This corporate project tracking process is designed to secure multiple perspectives and these multiple perspectives created complex communication issues for the virtual team. One participant observed that after virtual team meetings, due to pressures and perspectives from outside the team, "*things would start to be unwound back to the different viewpoints.*" He added: "*different people are exercising their power in different ways to control* *their own domains and on some level we're doing the same thing to try and drive the outcome that we're looking for."* The team's use of a systems diagram to win support alienated outsiders who thought it depicted too large a scope, too ambitious an approach, by being holistic. However, the team persisted and in its ongoing conflict, the virtual team believed that the team's existence was evidence of corporate commitment to its approach. *"As long as the team remains functionally, then it's doing whatever it needs to do."*

While the team was unaware of this, there is some evidence that the virtual nature of the team might have masked the fact that its existence was being ignored. The existence of the team may have represented inertia rather than commitment. The team's geographic dispersion and periodic, rather than continuous, work effort may have meant that real commitment was not tested. It was assumed.

Virtual is vulnerable when the team literally lacks 'face time' for developing mutual understanding with others in the organization. Indeed, the team's vulnerability coupled with its inability to fully articulate the power and influence issues led me to a third finding.

The Third Finding

The third finding is less finding and more noticing that something is missing. The virtual team members lack language for talking about power. This surprised me since I was expecting leaders to volunteer information about power, as they had with McClelland (1955; 1975; 1987). Instead, these executives hemmed and hawed in response to follow-up questions and requests for clarification about power. They paused for long periods in contrast to their usually lively flow. When they did speak of power, they employed unsophisticated metaphors for force (*"drive to," "rub noses in," "counteract")* and resistance (*"nothing is going to happen;" "they won't hear you").*

When I compare the extent and nature of the language in the transcripts for discussion of technologies with the discussion of power, the team members are precise and clear about technologies and less voluble, more hesitant and limited with regard to power. This is similar to my comparison with their language for teamwork. They are confident and forthright when discussing the value of each member of the team and the nature of their work together. They do not pause, nor do they grope for words or ask me what I think. They know what they think and are positive and articulate in their opinions. In contrast, they are neither confident nor articulate regarding power.

Within a year of the completion of this study, the company officially reorganized. Persons in positions of hierarchy over this team were re-assigned. The corporation acquired a company whose technology held potential for meeting the same strategic objectives that had been the virtual team's goal. Reorganization and acquisition were implemented while the virtual team's solution was not.

Conclusions

At the beginning of this study, I asked: if virtual ways of organizing are replacing other ways, is power still resource allocation? The answer from this case is that the virtual way of organizing did not replace other ways of organizing. The corporation's hierarchy, project management processes, and acquisitions budget were all more powerful than the virtual team and its solution. And, yes, there is power in resource allocation.

However, there is also power in virtual teams. The virtual team literature (Duarte & Snyder, 1999; Lipnack & Stamps, 1997) is correct that these new ways of working can add value. This virtual team had the power to find a solution to a complex, strategic problem that the corporation had failed to resolve twice before. As a problem solver, the virtual team proved to be superior to two past approaches: one that regulated compliance to solve the problem and the other that created an organization of about a hundred employees to work on the problem.

So why did the virtual team's solution not win acceptance? Perhaps the literature is too optimistic about the ability of these new ways of working to supplant traditional methods (Lipnack & Stamps, 1997). The executives who participated in this study were members of *both* the traditional organization and the virtual team. Although they did not consciously acknowledge this, their allegiances were split, straddling both worlds. The expert power (French & Raven, 1959) of the virtual team could not completely supplant their positional authority (French & Raven, 1959) because their identity and membership in the organization lies in their positions. Their status is based on position. Their recognition and rewards are tied to their positions. Perhaps this dual allegiance is what caused them to pause and fumble for words to describe power. They were flummoxed by conflicting powers.

What about the CEO? He was the team's sponsor and the source of their cash award for excellence. Why did the CEO's involvement not tip the scales of power in favor of the virtual team? It appears that the CEO's power was counterbalanced by his joint roles as both sponsor of the team and director of the traditional structures and systems. This is the essence of the executive paradox: the same individuals are both the administrators of traditional systems and pioneers of new approaches.

Executive Paradox

How does this case portray the 'executive paradox,' a phenomenon where the same people are in charge of change and status quo? In this case, there were two factors empowering the traditional organization. The first factor is the virtual team's use of systems thinking. This approach presented a different schema, a different way of framing and solving problems than the sequential, corporate approach. The traditional decision makers and decision-making processes could not accept this approach. It was too different, too apparently comprehensive, and, holism was perceived as excessive ambition. Second, the virtual nature of the team made it invisible in the corridors of power. The resource allocation power (Pfeffer, 1981, 1992a & b) of the traditional organization prevailed because the virtual team was, by definition, not a resourced entity. It was out of sight, out of mind, and out of budget. Further, the virtual team members had no corresponding, non-traditional vehicles or mechanisms outside of their team for gaining acceptance and resources. This virtual team was not an organizing component, nested in the middle of a hierarchy of organizing systems but, rather, a source of competing values. It was not in the breakdown or supplanting of bureaucracy, but in the conflict with it that power manifested. And, when it did, the virtual team lacked language for making sense of their dilemma.

While teamwork literature has not focused specifically on power, it assumes that teams add value to bureaucratic organization of work. Therefore, the literature holds an implicit assumption that the expert power of a teamwork approach to organizing opposes the positional power of the bureaucracy. Consequently, in these organizations employing multiple forms of organizing, executives should be prepared to recognize multiple, complex, co-existing value systems. And, executives should possess a rich language for power to enhance their ability to navigate these complex systems (Brown & Duguid, 2000).

Implications for Executive Development

Evidence of the paradox emerging from this study is that the virtual team was *both* egalitarian and hierarchical. The members were egalitarian in their dealings with one another and hierarchical in their membership and involvement in their corporation. But, they could not sustain the tension. They could not maintain and balance competencies for both situations. Eventually, the teamwork ended and the bureaucracy prevailed. If virtual teams such as this one are to be successful, they need to find a way to sustain being both competent egalitarian collaborators and competent positional power brokers, without having to choose between the two roles.

As organizations increasingly use virtual teams, executives will have to learn how to identify and use which competencies when. Increasingly, the jobs, titles, and positions in traditional organizations will compete for allegiance and resources with the needs, deadlines and expertise necessary for projects. Both systems will co-exist and may, as in this case, co-exist in conflict.

Already, the strains between these co-existing systems are evident in the call for compensation reform (Crandall & Wallace, 1998), but compensation is only part of the solution. If executives are simultaneously sources of new solutions and barriers to innovation, they need to be developed to manage within their paradox. They need to acquire language for expressing conflicting power dynamics. Without a language for power, how can they make sense of their dilemmas? How can they both innovate and stabilize? How can they maintain global reach while maximizing personal understanding? This one case cannot answer these questions but it serves to provide some understanding of what is at work inside the paradox.

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Team Development and Group Processes of Virtual Learning Teams

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This study describes the community building process of virtual learning teams as they establish group roles and norms. Student teams in an online HRD masters degree program were studied to understand (1) how virual learning teams develop and (2) what processes and strategies are used to accomplish team tasks. The results show that virtual teams collaborate effectively from a distance by using a set of processes and sharing the leadership role among team members.

Keywords: Virtual Teams, Cooperative/Collaborative Learning, Online Learning

In the approaching 21st century, organizations face many challenges from increased globalization and rapidly changing technologies. While technological advancements in the workplace continue to be the primary factor in maintaining a competitive advantage, organizations also recognize the need to address the technical knowledge and skills of the workforce. This has led to an increased emphasis on the role of learning in organizations, where individuals must view learning as a major component of their work responsibility within the organization. The nature of work within organizations is also changing from individual assignments to team-based activities. The change toward increased team-based responsibilities has paralleled the growth of communication technologies that can be used to support work teams. Teams are now able to communicate, collaborate, and perform irrespective of time and space.

The role of teams is not confined to the workplace. Today's workforce and education providers are realizing the benefits of collaborative teams in the learning process. Hundreds of studies have demonstrated that learning is most effective when students work in groups and verbalize their thoughts, challenge the ideas of others, and collaborate to achieve group solutions to problems (Johnson & Johnson, 1989). While the benefits of collaborative learning have been established for face-to-face teams, the impact of distance and time on virtual team roles, functions, and processes has received little attention. Working in a virtual team is unique because of the physical separation of the group, yet little is understood about how distance and time affects their ability to make plans, communicate, and work to accomplish team goals.

The purpose of this study was to describe the community building process of virtual learning teams as they form, establish roles and group norms, and address conflict. The goal of this study was to generate recommendations for integrating successful virtual learning teams into Internet-based training courses. This study was guided by the following research questions:

- How do virtual learning teams develop and determine their group process?
- What processes and strategies do virtual learning teams use as they carry out their team tasks?

Theoretical framework

Understanding teams, collaborative learning, and team environments is becoming more important because of advances of technology, globalization, and because organizations are moving toward utilizing more network structures and team-based functions (Lipnack & Stamps, 1997). The term "virtual team" is becoming more prevalent as teams move from being primarily co-located, where team members are located in one physical location, to virtual, where team members are geographically unrestricted.

Collaboration studies have overwhelmingly shown that cooperative learning situations promote student achievement within problem solving settings as well as higher productivity, greater social skill development, and increased self-esteem (Johnson & Johnson, 1989). Work groups, or teams can be defined as "interdependent

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collections of individuals who share responsibility for specific outcomes for their organization" (Sundstrom, DeMeuse, & Futrell, 1999, p. 120). Definable characteristics common to all collaborative work groups include: (1) a definable membership, (2) awareness of one's membership, (3) a shared sense of purpose, (4) member interaction, and (5) ability to act as an individual unit as well as a unit of individuals (Knowles & Knowles, 1959).

Many researchers have studied how groups develop into functional teams and select group processes to accomplish their tasks. Tuckman (1965) introduced a widely accepted model of the way groups develop and work together. The model highlights the four stages of forming, storming, norming, and performing. *Forming* refers to a period in which members try to determine their positions in the group, procedures to follow, and the rules of the group. The second stage, *storming*, starts when conflict arises as team members resist the influence of the group and rebel against accomplishment of the task. The *norming* stage begins when the group establishes cohesiveness and commitment to its tasks, finds new ways to work together to accomplish the tasks, and sets norms for appropriate behaviors. The final stage, *performing*, occurs when the group shows proficiency in working together to achieve its goals and becomes more flexible following the procedure for working together. Each stage of Tuckman's model is an essential step for a team and much like other linear models, if the first step is not accomplished, the latter stages will not be successful.

Another contemporary framework of group development, presented by Gersick (1988), is called *Punctuated Equilibrium*. This framework suggests that regardless of group structure, tasks, or deadline; groups work on their tasks in the same temporal pattern. Gersick found that internal group processes focused primarily on the time frame set for a team project. Five time segments characterize her framework: three brief transition periods at the beginning, mid-point, and the end, and two long work periods between the transition points. The first transition point starts when the group has its first meeting and immediately establishes its strategies and approaches to accomplish its tasks during the first long work period. Then, at the mid-point of the group project time, the group goes through the second transition that sets the direction for the second long work period. The mid-point transition involves the reexamination of group strategies, procedures, and goals. The second long work period is similar to Tuckman's performing stage, where the outcome becomes the focus of attention. The last transition point is the completion period where the group finishes its tasks and adjourns. It is clear that the effectiveness and outcome attainment of teams is dependent upon the resolution of conflict, developing roles within the team for working together, and supporting one another as individual learners.

Virtual teams are groups of individuals who interact through various communication technologies to accomplish its common goals. Virtual learning teams are being used in education as well as corporate training programs in an attempt to enhance collaboration and cooperative learning experiences. In the expanding market of virtual universities and online degree programs, virtual learning teams are being used to increase collaboration, communication, and ultimately student learning (Bailey & Luetkehans, 1998). These virtual teams rely on Internet technologies such as videoconferencing and chat rooms to interact and become functional work teams. Virtual teams allow instructors of online courses to assemble effective teams in a short period of time, enhance the utilization of external resources, and increase team member interaction and collaboration (Townsend, DeMarie, & Hendrickson, 1996). Using virtual teams also promotes knowledge sharing and enhances the application of knowledge and skills (Horvath & Tobin, 1999).

Even though various studies of teams using computer-mediated communication have contributed to an increased understanding of both face-to-face and virtual teams, the results are inconclusive (McGrath & Hollingshead, 1994). Most studies comparing face-to-face groups and virtual groups using communication technology suggest that face-to-face teams are more effective. McGrath and Hollingshead (1994) examined fifty studies on computer-assisted group performance and found that computer-mediated groups tend to have fewer interactions and less information exchange among members than face-to-face groups. Virtual team members can exchange verbal information as efficiently as a face-to-face team, but their ability for non-verbal exchange is severely limited, which can contribute to increased misunderstanding among members (Warkentin, Sayeed, & Hightower, 1997). In another study, traditional teams were found to have better internal leadership and coordination than virtual teams (Burke & Chidambaram, 1994; Eveland & Bikon, 1989).

Theory development and empirical research are needed to better understand and respond to the challenges that virtual teams face (Furst, Blackburn, & Rosen, 1999). Although there have been several related studies in this area, few research efforts have focused on the virtual team within the formal online education context. Online learning teams are usually more unique than those created in more traditional educational settings. Often these students are working professionals who have a limited history of working together, and few prospects of working together in the future. Thus, further understanding of group formation and team dynamics in virtual environments is critical to the integration, creation, and support of online learning teams.

Methodology

This study was guided by an inductive analysis to understand the dynamics of virtual learning teams. Both quantitative and qualitative methods of inquiry were used to capture the dynamic interaction within groups and the underlying factors that guided group process and decision making. The analysis was aimed at discovering the critical elements that emerged during team development and an analysis of factors that influenced team process.

Participants

The participants in this study were students enrolled in an HRD masters degree program that was taught entirely online. Thirty-six graduate students were enrolled in the course, representing ten different states and two countries. The class was divided into seven virtual teams comprised of five or six team members. The groups were formed based on geographical location to reduce the impact of disperse time zones on group interaction. The exception to this was a group comprised of two Koreans, two students from Florida, and one student from Connecticut.

Technologies for Virtual Team Support

The Internet-based technologies used in the online program were specifically selected to support communication and collaboration within the virtual teams. The online course supported the direct use of e-mail, a collaborative web forum (WebBoard™), synchronous text chat, and Internet pagers (i.e., Instant Messenger™, Yahoo! Messenger™, ICQ™). The virtual teams also had the opportunity to use other collaboration technologies to support their work. These technologies ranged from traditional forms such as conference calls to multimedia forms such as NetMeeting™.

Instrumentation

Several established instruments were used to assess virtual team development and process. Lurey's (1998) *Virtual Team Survey* was used to obtain information on the team's process, leadership, technology use, and perceptions regarding overall team performance and individual satisfaction with the team. Nemiro's (1998) *Background Survey of Virtual Team Members* was used to assess the team member's feelings about working in a virtual team and to identify the typical types of interactions that occurred. The online versions of these instruments were identical to the paper versions in both format and content. In addition to these administered instruments, electronic logs of interactions among the team members were captured and analyzed. These included the archived logs from group chats, e-mails, and discussion board postings. An interview guide was developed to ensure consistency during the follow-up interviews of the team members.

Procedures

Data were collected over a three-month period following the completion of the six-week online course. Virtual team members were sent an e-mail message that asked them to complete the instruments within a set time frame. The subjects completed the forms online and submitted their results electronically. All instrument data were entered into a statistical software package for analysis.

Following the collection of survey and course data, three members from each team were interviewed. Two members of the research team conducted the interviews over the telephone. Having two researchers participate in the interviews facilitated the process of note taking and allowed the interviewers to compare notes and discuss the information obtained following each interview. The identification of strategies and problems that influenced team performance was determined by open-ended questions asked of each team member during either phone interviews or follow-up personal e-mail exchanges.

Data captured electronically using internal data logs from various communication technologies were downloaded and formatted for analysis. Determining the purpose of each of the messages sent using the various technologies involved an initial summarization of the message content followed by a classification based on the purpose of the message. While the set of purposes used to classify the messages were initially organized according the established models of group interaction, the final classification was allowed to emerge from the analysis.

Results

Team Development

The students were assigned to a virtual team at the beginning of the course. A web page was posted a week before the class began that showed who was assigned to each team. This listing included the Instant Messenger™ screen name and e-mail address for each team member. No formal guidance was offered to the teams in terms of their formation and development other than a due date for the first team assignment, which was approximately two weeks after the online course began. This led to different rates of development for the teams as each virtual learning team evolved and defined their group protocols/norms and leadership.

One team established contact prior to the beginning of class while the rest of the class members waited until the first formal class synchronous session to begin to interact socially online. The teams initially tried to define their group norms by discussing team purposes and goals and performed some informal team building activities. This involved getting "acquainted with one another, sharing what we knew about the course, and setting up a tentative schedule/procedure." Although this seems relatively straightforward, these preliminary activities were often the source of much difficulty, as shown by the comments provided during the interviews:

- "It was tough getting together with the technology. It took awhile to get used to."
- "What took 10 minutes face to face took an hour online."
- "It was hard to make decisions. Not having nonverbal cues made it harder."

During the first online meeting, the teams tended to have one individual accept responsibility for coordinating and compiling the first team assignment. This became a standard for later assignments. It was also during these first meetings that the majority of the social networking began. This "getting to know you" interaction continued for several team meetings, and gradually diminished over time. Some of the comments made by the students during the interviews regarding team formation included:

- "Talking about a forming or storming phase, we didn't really go through that, or if we did, it was very rapid."
- "The first couple weeks were hit and miss ... it was hard to coordinate everyone's schedules"
- "I met one team member on AIM before class began. I took the initiative 'Hi, I'm Mariah, your future teammate ...'"
- "I think we met after the first class. We talked a bit about ourselves, our backgrounds, what we thought of class. We familiarized each other with technology ... Informal teaching and instruction of other team members. We talked about assignments and how we would do them."
- "It was difficult negotiating to meet online ... what night and time worked best for everyone varied with children, work schedules, etc."

Verbal and non-verbal cues played a role in the overall social team building process and interaction. For instance one team member stated. "We never got too personal – others in the team did not know I was pregnant until the last week of class. This is something that would have been obvious if we were meeting face to face, but it just never came up online." Others, as they began to depend on one another to develop and create deliverables for the course, felt like they could trust their teammates, but one in particular stated that they were "Craving human contact – such as a team member looking me eye to eye and saying 'I'm going to take care of this.' As much as I want to trust team members, I don't know them as well. I have concerns about accomplishing a large team project – especially one that might require a physical product."

Team Norms and Processes

As in traditional face-to-face teams, norms were developed to facilitate team performance. The responses received in response to several questionnaire items indicate this. For example, punctuality was indicated as being important for team communication and teamwork (M = 4.27, SD = 0.51). Other team norms, such as knowledge and information sharing (M = 4.46, SD = 0.50), requiring active participation (M = 4.07, SD = 0.52), and timely response in terms of feedback (M = 3.82, SD = 0.42) all indicate a high expectation of adherence to team norms by all individuals within teams.

Although each team was unique, there were commonly shared elements in their process, especially the work procedures for completing team assignments. Generally, the teams settled into a work process similar to the one described below after the first two or three assignments. Of course this varied between teams, with some teams meeting less and others meeting more often (up to three or four times a week).

1. Meet after the class synchronous session to define roles for the assignment and discuss timeframes for completion.

2. Do reading individually and get together by Monday and post individual input on WebBoard™.
3. Meet synchronously as a team two days before the assignment was due and refine input.
4. The team compiler would draft and post with revised input.
5. Assignment posted for final approval and additional comments one day before due date.
6. Any additional comments would be added and posted into a final draft

Each team's process was continually refined as the teams progressed through the class and became more efficient in assembling their work. The students made several interesting statements unique to specific team group processes and procedures during the interviews:

- "During the WebBoard chat, one person would tend to lead the group discussion by keeping the team focused on the task at hand. There seemed to be a split between males and females within the group."
- "For conflicts, we'd speak to the person individually on private chat (AIM) and not discuss it in front of others. It is difficult to resolve communication issues [online]."
- "If someone missed a meeting, a summary would be posted or forwarded to him/her. There was an expectation to check the WebBoard 5-6 times a day. We developed our own language and abbreviations to ease communication."
- "Coming up with a document took awhile online initially, but we got more efficient. We came up with our own abbreviations – own language (p = paragraph, s = sentence). We had our own jargon as a team."
- "We had a captain each week. We didn't meet much. We used the WebBoard more, and our meetings were short."

Team Leadership and Roles

The role of leadership was an interesting aspect of the virtual teams. Surprisingly, only two of the seven teams had a leader emerge in the group. Most of the groups shared the leadership role between everyone, often rotating on a weekly basis. Responses to the interview question, "Did you have a leader in the team?" are shown below:

- "Those who were experienced with technology were more dominant."
- "Leader, gatekeeper (reminding when assignments were due). There were different roles at different times. These roles shifted informally. It was very much like an actual team, except roles emerged virtually."
- "One person emerged as the leader for the team, and this person would keep the group on task. This person had strong opinions and personality."
- "We did not have a leader, and this was problematic ... It's difficult to [form a team] face to face, and even more so with a virtual team. People are too polite and don't resolve conflicts."
- "No. Roles varied based on what the assignment was, because we all had different backgrounds. Everyone had a specialty; there was an English reviewer, two people to write-up the assignments, two people to critique. It depended on personal scheduling."
- "No. The person who compiled was kind of a 'leader for the week.' We didn't designate, but shared it throughout the course."

Comparing the results of the questionnaire to the statements made in the interviews resulted in some seemingly conflicting responses. For example, the questionnaire item, "The team leader was appointed by team members" received a low value (M = 1.54). This initially can be interpreted negatively, but the response may have been due to the fact that the role often shifted through the team. Additionally, the item "Team members alternated their role to be team leader (M = 3.22, SD = 0.82) conflicted somewhat with the interview responses. However, there was a general consensus that whoever the leader was, they "kept individuals working as a team" (M = 4.31, SD = 0.55). One result of the lack of consistent leadership may be seen in the responses students gave to the statements "Team members had a shared understanding of what the team was supposed to do" (M = 2.84, SD = 0.50) and "Team members used their own judgment in solving problems" (M = 4.14, SD = 0.54). This may be indicative of a task-oriented approach to team performance resulting in less of a "team" and more of an individual work group.

Team Interaction, Interdependence, and Trust

Virtual teams are uniquely dependent on team interaction and individual acceptance as they collaborate from a distance in their individual social network. As mentioned above, each of the teams formed in a uniquely different way, which fostered varying social interdependence from group to group. The teams' perceptions of their effectiveness and cohesion also varied from team to team. In general, each team exhibited a collectively positive team perception of individual teammates and their willingness to contribute to a common vision and commitment in achieving team goals. As a member of one team said "We worked very cooperatively. Each of us has the capacity to trust each other explicitly to do well." Another student claimed, "It was a team thing - we all made suggestions, we all contributed. It was a group effort and it was shared leadership."

However, not all team member perceptions of whether or not their teammates were contributing to effective team outcomes were congruent. For instance, during an interview one team member suggested that there was cohesion and team effectiveness when leadership emerged and "everybody in the group found a role as a communicator, giving feedback, providing content, or writing the drafts" within the team. In contrast, one of her teammates made the claim that "We never became a team. There was spotty participation throughout, and things were often left in a half finished state."

Conflict resolution stemming from lack of willingness to participate, lack of planning, or individual disagreements seemed to be three social issues that influenced the successfulness of building team trust and unity. In two of the teams, bad feelings about an incident were never resolved. Individuals were able to simply log off of the chat sessions at any time they felt like it and could virtually disappear if they chose to. When conflicts were not resolved effectively it hampered the progression of the team. One team found that "it was difficult to resolve communication issues" but when they occurred, they would "speak to the person individually on private chat, keep on private chat, and not discuss it in front of others" which was a problem one of the teams ran into – a public dispute. Overall, teams found that they "Had to have a lot of trust with other members" and although the majority of the teams had no real problems with this, any type of trust issue made collaboration very difficult.

To better understand the students' social interaction needs, they were asked to respond to the question "Did you feel the need to meet face to face?" Respondents repeatedly claimed that meeting face to face was unnecessary. Out of 20 interviews, 17 students felt that it was not necessary to meet face to face. They felt that, in general, everything that was required of them was accomplishable virtually without the face to face interaction. However, there were discrepancies in some of the interviewee responses. One student said "No – it is not necessary to meet face to face, we got an idea of each other's personalities online," but later the same student said "One of the biggest drawbacks is the distances apart from each other. You can't get together and discuss over coffee or exchange information. This hampers getting it all together." In fact, three of the teams had some team members meet face to face at different times where it was geographically feasible and suggested that these meetings were beneficial in building social relationships with their colleagues. Individuals who were left out of the face to face meetings summarized their feelings well by saying, "It would have been fun or great, but wasn't necessary. Those who met face to face had a better relationship. But they didn't let it hinder other relationships."

Several benefits of not meeting face to face emerged, including (1) not meeting face to face enabled more flexibility in scheduling meetings, (2) people were less inhibited from a distance, and (3) in the long run, it is less time consuming because of "less socializing and more focus on the task." It appears that even though meeting face to face was not necessary for most of the course requirements for these participants, there is evidence that it is still desirable when possible. One team member stated "Collaboration is enhanced by face to face. You can do anything if you are paired up right – it's more or less a comfort level. The most significant thing I discovered is that I am a social learner, and the WebBoard™ doesn't fulfill that need. I realized that we as a society have moved on though, and I have to adapt." Perhaps those who are ready to meet the changing dynamics of business and education will be those that can adapt well to the changing nature of communication and information delivery.

Discussion

Although the Tuckman and Gersick models were considered to serve as frameworks for structuring the findings of this study, the data are insufficient to claim that they do or do not fit. Further research will be needed to determine this. However, virtual learning teams do seem to evolve around project timelines, group processes, and interpersonal relationships much like face to face teams. These processes included the activities identified by Tuckman in the terms of Forming, Storming, Norming, and Performing. The concept of stages also seems to be relevant to virtual learning teams as it was evident that the level of performance did seem to be dependent on how well the teams were able to establish procedures, resolve conflicts, and collaborate to bring about a successful task.

Typical situations for the teams emerged as well and were found to be interesting. Initial meetings in the teams seemed to involve the creation of group norms and procedures in order to set the directions in which teams will accomplish their tasks. Since the first assignment was due two weeks after the course started, the first team meetings occurred within the first week of the course. Team members generally tried to get to know each other quickly and get right on task. For some of the teams, an individual in the team tended to emerge as a team coordinator and initiated the interaction. Then, they developed a procedure for how the task should be accomplished. This procedure was later used as a team standard for working on subsequent team assignments.

It is also interesting that all teams went through a task process that is similar to Gersick's (1988) framework, although the time element differed as a result of the compressed nature of the assignment time frames. This typically included team interactions online and decisions on how the procedures and timeframes would be established for working on team assignments. Each member individually completed course readings and posted input in the class WebBoard™. Then, they met again online to integrate all their postings. A team compiler revised a final draft and posted it on WebBoard™ for other team members to review before submitting it to the instructor. The team task processes were developed as the teams went through the first class assignment and the teams became more efficient in their work process with later assignments.

Another interesting finding was the emergent roles of shared leadership in the team–as a coordinator and compiler. Four out of seven teams mentioned that leadership of the team was shared among team members, but they indicated that the compiler of each assignment became the team leader during that week. This resulted in the leadership role rotating among members for each assignment. The other two teams saw the team coordinator as a leader for the entire time, and they also served the role of facilitator and coordinator. They kept track of the assignment due date and often initiated the first interaction among the team.

Problems in the virtual teams came from a lack of willingness to participate, lack of planning, conflicting schedules, or individual disagreements. Most of these are social interaction issues. Lack of non-verbal cues made those issues invisible to other team members. While most participants mentioned that they missed face-to-face meetings, they said it was not necessary and they could accomplish all of the assignments without face-to-face interaction. It is likely that non-verbal language played an important role in social interaction and team building but not in the task process. It seems that with a short period of time for team building and because of the limitations of the distance education environment, team members did not spend much time on social tasks. The virtual teams needed to be quick in defining their processes, be familiar with the various communication technologies that were available, and be efficient in collaboration among team members in a virtual environment.

Recommendations

Several strategies appeared to be important to virtual learning teams for improving team development and group processing. The primary issues to be considered include:

1. *Team Building and Collaboration Skills*. Virtual teams need more time in the beginning to coordinate their first task and establishing relationships and protocols in their initial meeting. Instructional material on team effectiveness, formation, planning, and facilitation should be included early in online programs. Instructors must become a mediator and facilitator of virtual teams. The tendency is to form the teams and assume that people know how to interact and efficiently operate in "virtual teams" but it is not so. The majority of good teams do not occur out of happenstance - they are developed.
2. *Timeframes for Task Completion*. The timeframe for course projects should be reasonable and allow enough time for students to adjust themselves to work in a virtual environment. Working together online appears to take longer than face-to-face.
3. *Virtual Learning Team Assignments*. In many online courses, team projects have been used to evaluate student performance. As with any collaborative learning project, the types of assignments or work assigned in teamwork situations should be carefully considered. There should be a clear objective and benefit established for using group assigned tasks, especially in a virtual environment. They should not be assigned just because and assignment is expected. The majority of the interviewees suggested that if the task was too complex, it would be difficult to accomplish without the option of face-to-face interaction.
4. *Team Member Readiness in Technologies and Virtual Collaboration*. Team effectiveness in using collaboration technologies can determine the effectiveness of virtual teams. The better the team members are in using communication technologies, the more efficient in teamwork they should become.

This paper provides a glimpse of how online virtual teams develop and carry out their tasks. Like many descriptive studies, the results of this study were not meant to be generalized to other virtual teams, although the uniqueness of these virtual learning teams and their environment provide insight into how they develop and progress throughout their team life. Further research should address the issues of dynamic interaction during online meetings, the role of the instructor in establishing and supporting virtual learning teams, how teams select and use technology to support the group performance, and what actions help teams better collaborate and lead to greater team performance and individual learning.

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Developing a Consulting Tool to Measure Process Change on Global Teams:The Global Team Process Questionnaire™

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As international organizations strive to improve their global reach, the role of distributed teams and the role of human processes in improving performance on these teams are important success factors. However, there are few studies of such teams using instruments whose psychometric properties are understood, instruments that can both measure changes over time and compare teams. The Global Team Process Questionnaire™ is described and researched in this paper to identify its properties.

Key Words: Consulting; Teams; Intercultural

Companies using global teams (this term will be used for teams distributed regionally or globally) have found that such teams are required to expand internationally with effectiveness. "For the first time since nomads moved into towns, work is diffusing rather than concentrating. . . . In all industries and sectors, people are working across space and time." (Lipnack & Stamps, 1997, pp. 2-3) Global teams are utilized for research and development, to operate lines of business in a networked or matrix fashion, to serve the requirements of global customers in their locations and to implement innovations and change on a wide-scale basis. Organizations have found that global teams can be a competitive advantage and that not all teams are equally productive, even though they may be similarly constituted in terms of the professional qualifications of team members

Managing such teams requires understanding the relationships between the following areas: (Rhinesmith, 1993):

Personal styles
Stages of team development
Effective team functioning
Stage of professional development
National culture
Corporate culture
Functional culture

Rhinesmith notes that it is a mistake to automatically assume that "cultural differences [are] the *primary* driving forces in multicultural interaction. Many observers have found, however, that most multicultural teams are driven *first* by personal factors and issues of team development such as roles, responsibilities, power, and conflict." At the same time, culture plays an undeniable role: "The mistake made by many managers is not that they leap to cultural solutions from personal differences, but that they do not know enough about cultural differences to determine whether or not they are a factor." (Rhinesmith, 1993, pp. 131-2).

In the face of the complex factors influencing the functioning of global teams, some kind of method is required to disentangle the threads of interactions. Team Leaders and their managers cannot be assumed to be experts in this area; if help is not forthcoming, leaders, managers, and team members must peer into the "soup" of such relationships and guess which ingredients are contributing to, and which detracting from, team effectiveness. Such guesswork may often be misguided and in any event guesswork is difficult to standardize. Great team leaders may be intuitive, but intuition cannot be passed on to others and is often inconsistently effective.

The Global Team Process Questionnaire™ (referred to below as the "GTPQ") is a device which has been designed to identify those factors contributing to and detracting from team effectiveness for both team leaders and members. These factors include communications, roles and responsibilities, leadership, trust and other factors (see the list of questions in Table 1) identified as critical to healthy team process.

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Using such a tool as the GTPQ, improvements can be made through a targeted and efficient approach. Some of these improvements may be in the training and development of the team leader and team members; some may require personnel changes; and some organizational development interventions. The GTPQ is a diagnostic tool which allows decision-makers to take actions using better, more targeted information.

Five years ago a Swiss-based pharmaceutical company asked ITAP International, a consulting firm located in Princeton, New Jersey, USA, to develop a method for measuring process performance on three global teams. The teams were composed of scientists from Europe, the Americas, and Japan. They met four times over a period of two years, and continued their team responsibilities during the intervening periods. Their purpose was to reduce research and development time in three drug delivery areas: Oral, skin, and subdermal. The teams were tasked with similar assignments and because the composition of the teams was similar, they became ideal candidates for studying differences in human processes on global teams.

A questionnaire was developed to measure human process on these teams, and was administered four times over the two-year period that these teams met together. At the end of the two years, specific questions from the GTPQ were compared with peer rankings provided by the participants and these correlated positively; in other words, the highest-peer ranked team also had the highest GTPQ results on the questions tested. In addition, measures on team process on all teams fell when the teams' parent company was merged with another company, providing support for the notion that the questionnaire results were reflecting the impact of "real world" events. (Bing & Smith, 1995).

Over the past five years, the questionnaire has been further developed and provided to other global teams, many of them working in the pharmaceutical industry, and it has also been provided to employees in the consumer products and information technology fields and to the United Nations Industrial Development Organization (UNIDO).

The research outlined in this paper was conducted within the past year on two sister teams within a pharmaceutical company. Each team is focused on coordinating drug development within a single therapeutic area, or closely related area. The teams consist of representatives from traditional departments within the pharmaceutical company but the primary coordination and focus for drug development within therapeutic areas are the responsibility of the team and the team leader. These traditional departments include marketing, operations, clinical trials, regulatory affairs, and so on.

The stakes for the team, for the team leader, and for the company, are large. Very few compounds survive the rigorous weeding process required for registration and successful marketing of a drug, and generally there are few teams which manage to pull off such a success. Success is, of course, impossible with a compound which does not survive the process. However, in an odd way, certain kinds of failure are shadow successes; for failed compounds must be identified quickly and accurately to insure that the team accomplishes its mission of bringing only safe and effective drugs to market. Conversely, long, drawn-out processes which eventually lead to the withdrawal of a compound cost the company time and money and are double failures.

The teams studied herein completed the questionnaire for the first time some months ago, and the results are compared in this study. The questionnaires were administered electronically. Each team consist of about ten members. The results of this first iteration of the questionnaire has been reported to the team leaders.

Problem Statement

Teams are one of the principal mechanisms by which the operations of organizations are globalized, that is to say, are carried out internationally. It is likely that those teams that have the most effectively levels of human process will assist the organization as a whole to be more productive. However, in order to test this hypothesis, it is necessary to develop cross-team human performance metrics and then to statistically compare these metrics with other measures of productivity. This paper presents an approach to the first half of this challenge.

A global team is defined here as a team which is located in more than one country, or that has participants from more than one country temporarily working in the same location. Pharmaceutical teams of the kind described in this paper typically have both configurations.

Theoretical Framework

Various superb quantitative and qualitative approaches have been undertaken to better understand national cultural differences (Hall, 1976; Hofstede, 1984; Trompenaars, 1993). These studies have been successful in widening awareness of the influence of culture on relationships, performance and effectiveness within organizations.

Group dynamics within a multicultural and global context has also been explored for some time, often in the context of studies on management and human resources (Adler, 1986; Hofstede, 1991; Odenwald 1993; Berger, 1996; Harris & Moran 1996; Black, Morrison, & Gregersen, 1999). In some of these studies, the influence of culture on organizations was studied primarily in terms of the entire organization or upon individuals working within the organization. It is only within the more recent past that the importance of global teams has been recognized as a key factor within international organizations.

Since the Global Team Process Questionnaire™ was created it has been utilized with global and multicultural teams in the pharmaceutical, chemical, consumer product, and information technology industries. There have been over twenty teams studied. Team sizes range from 4 to 32 members.

The Global Team Process Questionnaire™ is constructed of three parts. The first section consists of "base" questions which are used with all clients. These form the statistical core of the questionnaire. These questions have been developed and redeveloped over time. For example, the question: "Are the objectives of your team clear?"was originally written: "Is the agenda of your team clear?" and was revised because the word "agenda" was sometimes taken to refer to the more limited sense of "calendar." Other questions were similarly revised over time. The questions have always been written in English because it has been the business language utilized by all of the teams studied.

The second section of the questionnaire consists of questions requested by different team leaders. These are typically related to process on one specific team, and are therefore unavailable for comparison with teams in other organizations, although they may be utilized for statistical comparisons on the same team over time or on a sister team in the same department or organization which uses the same question set. This is in fact the case reported in this paper.

Of course there are qualitative measures which provide insight into the processes and issues on these teams but which are not suitable for statistical manipulation. Therefore questions which require written responses are utilized to expand the information provided by the Likert-response questions and to serve as a check against the natural limits of closed questions.

How would measurement results from a questionnaire of this type differ on global and multicultural teams from domestic or monocultural teams? There is very little in the literature on this subject. However, landmark studies on national differences on questionnaire surveys by Hofstede, André Laurent, and Trompenaars have shown that certain questions will provoke responses that differ along national lines. For that reason the next step in questionnaire research on this subject should be to compare results based on demographics of global team members. These demographics will be added to the next iterations of the questionnaire mentioned herein. In the meantime, questions on communications and other human processes (goal-setting, trust-building) which have been shown to be especially sensitive to cross-cultural differences will likely indicate cultural differences; however we have no way of knowing whcih component is cultural, and which should be attributed to other causes. Even a question in this survey specifically related to culture, "What impact have cultural differences had on team performance?" is interpretational in nature and responses depend upon the respondents' concept of, for example, the roles culture and personality play in everyday life. Therefore, the data we now have available will not answer the question of the extent to which culture influences human processes on teams; that must follow the addition of demographic variables to the statistical analytic process.

This is an important theoretical question. From a practical point of view, however, team leaders and their managers are not particularly interested in the extent to which, for example, culture influences communications on their teams. They are very interested, however, whether communications as a whole on such teams are good or bad because in general they believe that this will effect the productivity of those teams. And when other forms of analysis implicates cultural factors, then in general managers and team leaders appreciate interventions to raise the awareness and skills of team members to understand and positively utilize these differences.

Methodology

Table 1 lists the questions utilized as "base" questions in the version of the GTPQ used in this study. Respondents use a six-level Likert Scale in assigning values as answers.

Two global teams performing similar work within a pharmaceutical company (developing discovered compounds from clinical trials through regulatory approval to market) were administered the GTPQ with the same questions within the same time period of one month. The teams contained twelve members each in number and were composed of medical doctors and professionals with doctorates in related fields. At the time the questionnaires were administered, both teams had members located in the U.S. and Belgium. The team leaders were also located one in Belgium and the other in the U.S. The questionnaires were administered by email and returned by email. The results were provided to the teams within one month of the initial administration of the questionnaires. These results were provided in two formats:

1. For each question, statistical averages for the team's response and in addition, where available, pharmaceutical industry averages on the same questions. Comments were also collected and anonimized to provide an additional level of meaning to each question.
2. "Spidergrams," sometimes called radargrams, were produced. These showed how each (anonymous) respondent had answered each question, and whether the respondents were in agreement or disagreement on the response to these questions.

One-way ANOVAS were run for the groups. The results were compared in order to determine the significant differences between the two teams on specific questions. The measurement level requirement for a data analysis with ANOVA is an interval scale. Although Likert scales are strictly speaking not interval scales (the difference between the scale items is not exactly the same for all respondents because of their assumptions), scales like the one used in the GTPQ are commonly treated as if they would provide this measurement level. The ANOVA table was chosen to display the significant differences between the two teams here in this report. To check the significance of differences on a higher statistical level a General Linear Model (GLM-Univariate) was computed for each question. The reported results were confirmed. (Krukenberg, 2000).

The results are compared to determine if these can yield recommendations to the team leaders to improve process effectiveness on the teams. Since neither group is a "control" group, and since neither group received an experimental treatment, the purpose of the comparison is not to determine whether a specific treatment did or did not have an effect, but rather to take a first look at whether the questionnaire can discriminate between teams in a useful way. "Useful," in this sense, means that recommendations for improvements in team process can be made from information provided through the use of the questionnaire.

Results and Findings

The following questions showed significant differences between the two teams at the .05 level.

5. How effective is the work of your team?
9. Group communications: My team has excellent / fair / poor communications.
10. Relevance of my team's work to the company's strategic goals?
11. Level of trust on team.
12. Ways of resolving conflicts.
13. Problem resolution on team.
16. Effectiveness of team leadership.
17. Consistency of direction from team members.

All of the significant results were on the positive side for one team (Team A), and negative on the other (Team B). In other words, Team A showed consistently higher scores on team process than Team B for those questions which reliably distinguished the two teams. (For questions at a lower level of significance, the results were more scattered.) What kind of conclusions can be made from this limited information?

First, there is a difference in perceived process effectiveness between these two teams. The members of Team A clearly have a better opinion of their team's work than members of Team B. Interviews with members of both teams conducted during a preconference needs assessment confirmed these findings.

Second, there were broad areas cited for problems on Team B, including leadership, trust, and conflict resolution. Two months after the administration of this questionnaire, the leader of team B was reassigned to another position.

Table 1: One-way ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
1. Have your skills and capabilities increased through participation in your team?	Between Groups	.01	1	8.929E-03	7.87E-03	.93
	Within Groups	21.56	19	1.135		
	Total	21.57	20			
2. Do you have time for work on your teams activities?	Between Groups	.01	1	8.929E-03	8.25E-03	.93
	Within Groups	20.56	19	1.082		
	Total	20.57	20			
3. Are the objectives of your team clear ?	Between Groups	.02	1	2.480E-02	1.64E-02	.90
	Within Groups	28.78	19	1.515		
	Total	28.81	20			
4. Are the roles and responsibilities of the team members clear ?	Between Groups	3.11	1	3.111	2.05	.17
	Within Groups	28.89	19	1.520		
	Total	32.00	20			
5. How effective is the work of your team ?	Between Groups	5.00	1	5.001	4.33	.05
	Within Groups	21.95	19	1.156		
	Total	26.96	20			
6. Have you had the opportunity to inform others in your functional area of the work of your team ?	Between Groups	.04	1	3.571E-02	1.84E-02	.89
	Within Groups	36.92	19	1.943		
	Total	36.95	20			
7. Have you had the opportunity to learn of comments on the work of your team from others in your functional area ?	Between Groups	1.02	1	1.016	.32	.58
	Within Groups	60.22	19	3.170		
	Total	61.24	20			
8. How do you rank the importance of the team to your company's future success?	Between Groups	1.59	1	1.587	1.70	.21
	Within Groups	17.72	19	.933		
	Total	19.31	20			
9. Group communications: My team has excellent / fair / poor communications.	Between Groups	22.92	1	22.921	18.36	.00
	Within Groups	23.72	19	1.249		
	Total	46.64	20		7.87E-03	
10. Relevance of my team's work to the company's strategic goals ?	Between Groups	7.68	1	7.683		.02
	Within Groups	23.89	19	1.257		
	Total	31.57	20		8.25E-03	
11. Describe the level of trust on this team (strong - moderate - weak).	Between Groups	9.53	1	9.528		.01
	Within Groups	20.14	19	1.060		
	Total	29.67	20		1.64E-02	
12. Are ways of resolving conflicts within the team clear / somewhat clear / unclear ?	Between Groups	12.44	1	12.444		.01
	Within Groups	30.22	19	1.591		
	Total	42.67	20		2.05	
13. When problems have arisen, have the team members resolved them effectively / somewhat effectively / not effectively ?	Between Groups	10.94	1	10.938		.01
	Within Groups	24.56	19	1.293		
	Total	35.50	20		4.33	
14. What impact have cultural differences had on team performance ?	Between Groups	1.65	1	1.648		.11
	Within Groups	8.47	15	.565		
	Total	10.12	16		1.84E-02	
15. Is your functional area management aligned with the goals of the Global Team ?	Between Groups	1.43	1	1.433		.26
	Within Groups	19.81	19	1.042		
	Total	21.24	20		.32	
16. How effective is the team leadership ?	Between Groups	15.50	1	15.501		.00
	Within Groups	24.95	19	1.313		
	Total	40.45	20		1.70	
17. Are team members pulling in the same direction?	Between Groups	13.35	1	13.349		.00
	Within Groups	10.72	19	.564		
	Total	24.07	20		18.36	
18. Do the teams goals align with the business strategy ?	Between Groups	.55	1	.546		.22
	Within Groups	5.36	16	.335		
	Total	5.90	17		6.11	
19. Is your functional area integrated into the team's overall activities ?	Between Groups	.52	1	.525	.48	.50
	Within Groups	20.78	19	1.094		
	Total	21.31	20			
20. Do you feel that much of your time is spent listening to issues not relevant to your functional area?	Between Groups	3.57	1	3.571	1.22	.28
	Within Groups	55.67	19	2.930		
	Total	59.24	20			

The purpose of this questionnaire is to analyze process effectiveness on teams and to suggest ways in which ineffective or harmful process can be reduced. By identifying specific areas for improvement, targeted change interventions can be made, either through training and development efforts or through other approaches. Conversely, the topics embedded in questions that elicit a positive response are not good candidates for useful interventions to improve team performance, since they are already highly rated.

For example, one of the areas that often comes up in the GTPQ analysis as one for improvement is question #3: "Are the objectives of your team clear?" However, in this case, there was very little difference between the two team responses, and the responses were within the normal range for pharmaceutical teams. (ITAP International has established a database of responses for teams by industry so that industry averages can be computed.)

On the other hand, another question (Question #9 in Table 1) which has in the past correlated with team performance (Bing & Smith, 1995) refers to the quality of group communications. Here, Team B's score is both significantly lower than Team A's response, and it is also significantly lower than the pharmaceutical industry average on this question. Therefore, any work with the team which focuses on communications has the assurance of targeting a significant problem. Other problems on Team B that can be approached to improve process effectiveness on the team are leadership, trust, problem and conflict resolution, and team cohesiveness.

Such a targeted approach can save an organization both time and money, since team leadership and upper management can make decisions on change and interventions based on a more assured understanding of the problems on such teams.

Conclusions and Recommendations

Clearly, this is only the beginning of research to determine both the effectiveness of this tool and what can be accurately described in terms of process effectiveness on global teams. Here are some areas which need to be researched:

1. Demographic research: How do nationality or cultural difference influence the process effectiveness of teams? Do teams with members of many cultures have significantly different results on group process than do teams with fewer cultures? How does homogeneity or heterogeneity of age or gender influence processes on such teams?
2. Measures over time: Do teams tend to improve their functioning in general over time without interventions?
3. What is the relationship between types of interventions to improve team effectiveness and GTPQ-measured changes in effectiveness?
4. Relationship of teams to the larger organization: What conditions in the larger environment foster team process effectiveness? What conditions can decrease such effectiveness? Are global teams in merging companies generally negatively impacted (replicating an earlier study)?
5. Relationships of teams to each other: Can teams with high process effectiveness mentor those with lower effectiveness?

How this research contributes to new knowledge in HRD

Although there has been much research conducted on teams with respect to process effectiveness, there is less research in the area of global or cross-cultural team development, with some notable exceptions. (Berger, 1996; Devereaux & Johansen, 1994, Saphiere, 1996). However, little emphasis has been placed on two aspects of global team development: Long-term, longitudinal studies of individual teams, and cross-team comparisons. This paper focuses on cross-team comparisons; longitudinal study of teams is in progress utilizing these same two teams. There is some evidence already that longitudinal studies will detect both internal team changes and external influences on these teams.

Second, team development is typically handled through generic training courses, in which principles of good team development are provided. The same has been true for global team development. The approach taken through the GTPQ and documented in this paper offers the opportunity for team members, leaders, and managers of these teams to take specific steps both to remediate problems on such teams and potentially to have effective team leaders assist other teams in their business or academic areas with ways to improve process. Such targeted intervention should be both more effective in bringing desired results and in addition should be an investment to improve productivity.

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The Role of the Learning Coach in Action Learning

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Partners for the Learning Organization

Action learning helps organizations use learning to deal with change. The learning coach plays an important part in action learning, yet there is little research about his/her role. The purpose of this study was to determine what practitioners think is distinctive about how they help managers learn from experience in action learning. Conclusions show there are external and internal influences that shape the interventions coaches use, and govern consistency between espoused theory and theory-in-use.

Keywords: Learning Coach, Action Learning, Change

Action learning is one of several strategies that can be used to stimulate the development of learning to help with change in organizations. Learning coaches help participants in action learning programs reflect upon and learn from experience. There is a lack of research about how learning coaches help individuals in organizations learn from experience and what this learning process looks like. The purpose of this study is to gain a better understanding of why and how learning coaches do their work.

Problem Statement

The problem addressed in this study is that there is inadequate documentation about what learning coaches do and why they do it. Little is known about how learning coaches help people in learning from experience and how this involves reflection and critical reflection. The purpose of this study is to determine what practitioners think is distinctive about their role as learning coaches as well as how they help managers learn from experience by using reflection or critical reflection. This study identifies themes from the work and words of practitioners, which are used to advance theory about learning from experience, and ways in which learning coaches in action learning help individuals within organizations deal with and learn from change.

Theoretical Framework

Recently, organizations have begun to experiment with forms of working and organizing that call for a fundamental reassessment of the role of learning as a way to deal with change. One way to engender change through learning is through learning from experience. Kolb (1984) and Boud and Walker (1996) believe that learning from experience is represented by a cyclical process. Considered to be of particular importance is the emphasis on action and reflection. Simple reflective practices can include reflecting back on action for learning; while more critical reflective practices can include questioning the governing values underlying basic assumptions and modes of operation, and refining and reframing business problems (Mumford, 1996).

This study looks at one strategy for helping managers learn from experience called action learning. Action learning is defined as:

> an approach to working with, and developing people, which uses work on a real project or problem as the way to learn. Participants work in small groups to take action to solve their project or problem, and learn how to learn from that action. A learning coach works with the group in order to help them learn how to balance their work, with the learning from that work (O'Neil, 1999, p. 14.)

Theoretical Schools of Action Learning

"One of the problems of describing action learning is that it means different things to different people" (Weinstein, 1995, p. 32). Based on an analysis of what has been written, I have concluded that there are four theoretically based schools of action learning (O'Neil, 1999). Further understanding of these schools has since been expanded upon by others (Hicks, forthcoming; Yorks, O'Neil & Marsick, 1999). These four schools are summarized

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in Table 1 - Theoretical Schools of Action Learning. The four schools are categorized by what appears to be the underlying basis for the way in which practitioners view that learning takes place during action learning. The different schools have much in common, but their different views of learning have an influence on the way in which a learning coach practices his/her role. The most significant difference for this paper is that the Tacit school, while considered by its proponents to be action learning, doesn't use a learning coach (Noel & Charan, 1988).

Table 1. Theoretical Schools of Action Learning

School	Scientific	Experiential	Critical Reflection	Tacit
Theory Basis for School	Alpha, Beta, Gamma; P&Q=L	Learning from experience	Learning through critical reflection	Incidental learning
Main Action Learning Practitioners	Revans (1989)	McGill & Beaty (1995); Mumford (1996)	Marsick (1990); Pedler (1996)	Noel & Charan (1992)
Role for Learning Coach in School	At start of program	Throughout the program	Throughout the program	Not used

The Scientific school is rooted in the work of Reg Revans, considered the 'father of action learning', who described his 'method for achieving managerial objectives' as consisting of Systems Alpha, Beta and Gamma. Given his early background as a physicist, these systems have a basis in the scientific method (Revans, 1982). Learning occurs through asking questions, which leads Revans to a learning formula, L=P+Q (L=learning, P=programmed instruction, Q=questioning insight (1982). Questioning insight has been described as 'discriminating questions' (Pedler, 1991); "P" is, "the expert knowledge, knowledge in books, what we are told to do because that is how it has been done for decades" (Weinstein, 1995, p. 44).

As part of the Experiential school, many proponents of action learning see Kolb's learning cycle as its theoretical base (McGill & Beaty, 1995; Mumford, 1996). Action learning enables learning in each stage of the experiential learning cycle (McGill & Beaty, 1995).

Practitioners in the Critical Reflection school believe that action learning needs to go beyond the simple reflection found in the Experiential school to focus on critical reflection through critical thinking (Brookfield, 1987; Mezirow, 1990); on the basic premises that underlie thinking. In critical reflection, people recognize that their perceptions may be filtered through uncritically accepted views, beliefs, attitudes, and feelings inherited from one's family, school, and society. Such unfiltered perceptions often distort one's understanding of problems and situations.

The main differences between the Tacit school, and those previously discussed, is its focus primarily on action through the project. Little explicit attention is place on the process of learning, which makes it primarily incidental (Marsick & Watkins, 1992).

The Learning Coach

The literature does not provide an explicit definition of a learning coach. Each author describes the learning coach differently based on how he/she understands the learning process (McGill & Beaty, 1995; O'Neil & Marsick, 1994; Revans, 1978). The literature does provide a picture of certain characteristics or traits. These characteristics and traits enable the learning coach to play many roles.

One of those is that of a process consultant (Casey, 1991; McGill & Beaty, 1995; O'Neil, 1997; O'Neil & Marsick, 1994; Weinstein, 1995). Skills are also identified for learning interventions. In the three schools that use learning coaches, the coach primarily works with the group through the use of interventions, i.e., questioning, reflection. The kinds of interventions and the frequency depend upon the kind of learning in which he/she would like the group to engage. The literature, however, primarily consists of prescriptions written from the personal experience of practitioners (Casey, 1991; McGill & Beaty, 1995; Mumford, 1993; Pedler, 1991). While there has been some research on learning outcomes in these programs, (ARL™ Inquiry, 1995; Weinstein, 1995; Yorks, O'Neil, Marsick, Nilson & Kolodny, 1996), there has been no research that has specifically focused on the role of the learning coach.

Most, but not all, authors consider the role of the learning coach as important (Casey, 1991; Marsick, 1990; McGill & Beaty, 1995; Mumford, 1993). Revans (1978) thinks that the learning coach role should be limited to the start of a program to ensure that managers understand that they have the latent ability to learn from one another. "Although it is theoretically possible, we know of few examples where action learning groups operate without coaches". (Pedler, 1991, p. 291).

Research Questions

The questions that frame the conceptual focus of the research are:

- What do learning coaches do to help individuals learn from experience?
- When does that help result in simple reflection, and when does it result in critical reflection?

The more specific sub-set of questions that help to answer the larger questions is:

- What external influences affect the practice of these learning coaches?
- What skills, knowledge and interventions do these learning coaches think they use in their work?
- What internal influences affect the practice of these learning coaches?
- What is the self-perception of these learning coaches—their espoused theory—of what they do?
- How does the self-perception of some of these learning coaches (those observed in a program) compare with their actual practice—their theory-in-use?

Research Design

Sample

This study relies on elite interviews. I had a personal relationship with practicing learning coaches in the United States, England, and Sweden. I knew, and had worked with, some of my subjects, who therefore agreed to participate in my study and provide access to a number of additional learning coaches. My subjects were a convenience sample based on these contacts.

My population is composed of 23 practicing learning coaches—14 males and 9 females: 6 from the US, 13 from the UK and 4 from Sweden. Four of these coaches participated just in the first step of the study. Twenty of the 23 were over the age of 40. Several of the learning coaches who participated in the research have been learning coaches for a number of years, are well published, and are considered by other practitioners to be well-known authorities. All of the learning coaches who participated in the study had backgrounds that enabled them to understand and practice action learning, and all had participated in one or more action learning programs.

Data Collection

The first step in implementing my research design was modified use of the "Self-Q" interview (Bougan, 1983), which involves asking potential interviewees what they think the researcher should ask to understand their expertise. I used the first two interviews in Bougan's process frame the semi-structured interview schedule. This interview was used with 5 coaches, 4 of whom were not part of the semi-structured interviews or observations.

The next step was to conduct in-depth, semi-structured interviews. The interview schedule was constructed from the literature and output of the "Self-Q" interviews. The interviews were conducted with 12 learning coaches who were not observed in an action learning program and with 7 learning coaches who were.

In the course of this research, I was not able to observe all of the subjects. The sites I observed were a multi-national food organization in the United States using an action learning program to help transform itself into a global organization, and a university in England using action learning as a basis for its masters and doctoral programs geared to people working within varied organizational settings. I observed 4 of my subject learning coaches at the US site—1 US male, 1 US female, and 2 Swedish males—and 3 of my subject learning coaches at the England site—3 UK males. Observations took place after the semi-structured interviews.

Steps for Analyzing and Synthesizing Data

I used the constant comparative method to analyze and synthesize data (Merriam, 1998). I used NUD*IST (Non-numerical Unstructured Data Indexing Searching and Theorizing) a data analysis software program for my analysis. Once in the NUD*IST database, interviews were reviewed while I listened to the recording in order to 're-live' each interview, while checking for accuracy and completeness of the transcription. During this process, I also began an "open coding" scheme of the data (Strauss & Corbin, 1990). Using the literature and "in vivo" codes, I developed an initial coding scheme. These initial codes were revised, expanded, clarified and synthesized throughout the analysis process. Data were synthesized and reported using the study's research questions. Pseudonyms were used in reporting the findings.

Validity, Reliability and Limitations

Because it is difficult for external readers to judge whether or not the researcher's interpretations are correct, Brookfield (1990) suggests rules that I followed in my study to contribute to its credibility, transferability, dependability and confirmability. These include—justify and document one's activities and conclusions; use sufficient quotations to allow readers to judge the validity of the findings; seek to acknowledge the limitations of interpretive research and their inherent disadvantages; use triangulation; acknowledge the importance of his/her presence in the research encounter.

My research had an inherent subjectivity because I was the data collector, data interpreter and a learning coach practitioner. Despite precautions, a certain amount of bias was unavoidable. Both the "Self-Q" and semi-structured interviews were self-report methods and were only balanced in part by observations. Finally, I may have brought some additional bias to the research since I knew many of the coaches so well.

Findings

The findings from this study fall into 3 general areas. First, external influences on the roles of the learning coach; next, the primary role of the coach, that is, interventions with his/her group; and last, the internal influences on the coach. The combination of the interviews and observations also resulted in some findings regarding coaches' espoused theories versus their theories-in-use (Argyris & Schon, 1978). These findings result in conclusions about the basics of a learning coach's practice.

External Influences

The external influences found in this study include the coaches' personal background, for example, history, skill and knowledge, and people who had an impact on them. These influences also reflect the type of action learning programs in which the coaches work.

These findings demonstrate that people who come from very varied backgrounds can perform the role of the learning coach. While there are a number of skills and knowledge people could bring to the role, one of the most important is that of the ability to help groups work with their process. "Learning coach and process consultant are not the same, but I think clearly there are a number of skills germane to both." The findings showed a particular emphasis on not viewing oneself as an expert and the maturity to put aside one's needs and focus on the needs of the group. There are additional skills and attributes that are also necessary and important for a learning coach to have or develop that go beyond helping groups with their process, to helping groups focus on their learning.

The design of the action learning program in which coaches work can also have a significant influence on how they work with their group. The interaction that a coach would have with a group would be different depending on whether the design called for participants to have individual projects or group projects. The length of the program can have a significant impact on the work of the coach. If the program is very short in duration, the group has more to do and learn in a shorter time, so the coach may take a more active role than in a longer program. Sponsors of projects can influence how a group and coach work together; participants who understand the action learning process behave differently in the group than those who don't.

Interventions

The learning coaches in the study confirmed that the skill sets, and interventions, of the process consultant were an important part of the repertoire of the learning coach. The coaches went on to emphasize, however, that while this skill set was needed it was not sufficient. While many of the interventions an coach might make, for example, providing feedback to individuals and the group, are the same as might be made by a process consultant, there is a separate set of interventions required for a learning coach to be effective. These interventions take the action learner to a 'deeper, learning level' as one coach stated. These interventions have a common thread of creating situations that would promote and support learning as shown in Table 2.

This focus on learning makes sense when thought of in light of the Schools of Action Learning. The primary underlying assumption in the schools is how coaches think about the way that learning takes place through action learning. In order to enable participants to learn through scientific problem solving, simple reflection, or critical reflection, a learning coach needs to shape his/her practice to help bring learning about by choosing specific interventions for learning that fit their practice.

Table 2. Interventions that Create Situations for Learning

Situations	Action Learning Interventions
Specific interventions for learning	Questioning
	Reflection and Critical reflection
	Us of programmed knowledge and just-in-time learning
	Make work visible
	Create ways to help think differently
	Challenge the group
Creating an environment for learning	Emphasize confidentiality
	Work with an individual, but only within the group setting
	Create a supportive environment
Transfer skills needed for learning	Share role of 'expert' with group members
	Help participants give and receive help/feedback to each other
	Transfer learning
	Help rather than teach
	Say nothing and be invisible
	Transfer learning coach skills

InternalIinfluences

The findings showed two main kinds of internal influences. First, their espoused practice, and for some their actual practice, demonstrated support for the conclusion that their beliefs about how learning takes place impacted their practice. Second, coaches described an internal view, or metaphor, that helped shape their practice as well.

When their words are looked at through the lens of the Theoretical Schools of Action Learning, twelve of nineteen of the coaches interviewed and/or observed "fit" into a particular theoretical school. These coaches also described an internal view—metaphor—that appeared to influence their practice. Other coaches in the study reflected one of the two internal influences or none at all. I inferred that this theoretical underpinning and metaphor were indications of a strong sense of self-awareness that lead to an informed choice about interventions, and a resulting consistency between beliefs and actions. Without this self-awareness, coaches could exhibit inconsistency in what they said they wanted to accomplish and what they actually did with a group.

Espoused schools. Table 3 illustrates the school the twelve coaches espoused.

Table 3. Espoused Schools and Learning Coaches

School	Scientific	Experiential	Critical Reflection	
Learning coach	Al	Murray	Pete	Lance
		Bruce	Ben	Karl
		Mary	Wendy	Hillary
			Steve	Linda

Beliefs about learning influenced the choices these coaches made about their interventions. As an example, the models that Al talked about using fit a scientific framework of problem solving and his description of when he usually made interventions portrayed a very structured approach.

> I tend to refer more than anything else to the basic problem solving model. And later related to the learning cycle model. But out of the problem solving model.
>
> The set itself will organize its own timetable for meetings and will stop the meeting and plan a review and I'll be invited to make an intervention. That's the usual thing. Together with summing up the end.

In the Experiential school, Bruce, in response to a question about what models he used with groups, talked about an instrument and model similar to the Kolb model. As he later described his work with various groups, he discussed his use of reflection as a consistent intervention.

> It's not a term I'm familiar with but if it means that you and the group, you ask the group to pause and reflect, yes I certainly do that. Always at the end of a session. When they've finished. Let's spend some time reflecting. So I think inevitably at the end of a particular period of time.

These twelve coaches, identified in Table 4, had a clear view in their minds of a cycle of learning from experience. The models they espoused and their descriptions of their work also suggested that reflection in the cycle was crucial. Where the distinction came into play was in their beliefs about the kind of reflection that they felt was crucial for the kind of learning they believed should take place in action learning.

Metaphors for practice. Many practitioners and theorists discuss internal views—metaphors—in the literature that appear to help describe and shape their practice (Botham, 1993; Casey, 1991; O'Neil, 1996). Continuing with the concept of metaphors used by these other coaches, the following shows views that were expressed by coaches in the study. It appears these metaphors reflect a belief system that influences how coaches work. They described the metaphors of the Radical coach, the Consecrated/Religious, the Deep Diver, the Legitimizer, and the Mystery Maker.

The Radical learning coaches interpreted a significant part of their role as enabling participants to become empowered and use that empowerment to question and challenge authority. Their view of action learning fit a more radical mindset that of development within an approved paradigm. Carrying forward with illustrations of the coaches portrayed in the Theoretical School descriptions, Pete, in the Critical Reflection school, portrays himself as a Radical coach.

> For me what's different is the vision of what you're trying to bring about. You're not necessarily trying to bring about more effective organizations in the sense that might be described in a particular ideology or philosophy. ... And it's not necessarily understood that way by the people who run the organization or have the power. So it's—I think he's (Revans) much more subversive than process consultation.

The Consecrated/Religious coach has an underlying current of spirituality to their work and submerges or subordinates their needs to that of the group. Ben in the Critical Reflection school is an example.

> ... servants seeking service rather than 'I have something you can buy from me'. People who are making a living may be troubled by it. (Ben)

The Deep Divers described their work as going below the process level of the group to a 'deeper' learning level. They often saw themselves as being very intuitive in their work, so much of their thinking was below the surface.

The Legitimizers conceived of one of their main roles to be that of someone who is just there. By just being there, they are instrumental in creating an environment in which people are free to learn. Lance, in the Critical Reflection school, saw himself in this role.

> You legitimate the situation. To reflect and to do something which you usually don't do. ... You represent the whole idea of the program and just being there and seeing the group, and listening to the group is sometimes enough to get a lot of things happening which have never been able to happen.

The Mystery Maker was a role that was criticized by learning coaches in the study, although many admitted to struggling not to take on the role themselves. Mystery Makers create a mystery about what they do. Through this mystery, they bring the focus of the group on themselves and what they know. They 'steal' learning opportunities from the group.

> And that you've got to watch and that means more—not less—self control. And knowing that if you've got this potential in you to devise a bully pulpit and then come across as sort of a sage/guru figure. And every time you utter something of any significance, people sort of write it down. (Ben)

These findings demonstrate that a number of learning coaches' practices are based on both an explicit theoretical basis, as well as an internal, metaphorical view. Having explicit internal views of his/her practice appears to influence the potential of a match between a coach's espoused theory and theory-in-use.

Conclusions and Recommendations Regarding the Role of the Learning Coach

Based on some of the key findings of my research, we have a more insightful view of the role of the learning coach (Table 4 - Basics of a Learning Coach's Practice). In this table, I again look at some of the learning coaches discussed earlier in the findings. They represent examples of 12 learning coaches in my study who had a self-awareness of how they think learning takes place in action learning and had an internal metaphor that influenced their practice. Both of these internal influences appeared to impact the kind of learning interventions the chose to make. These relationships provide us with one way to be able to look at the findings, so are not always true in every instance.

Table 4. Basics of a Learning Coach's Practice

	Radical	Consecrated/ Religious	Deep Diver	Legitimizer	Mystery Maker
Scientific			Al		
Experiential		Bruce			
Critical Reflection	Pete	Ben	Wendy	Lance	
					Chris

As an example, Ben appeared to be a strong Consecrated/Religious coach. He talked about "servants seeking service" and described one of his interventions with the phrase, "my intervention seemed to create some sort of atmosphere which almost helped heal the thing". When asked about developing a learning coach, he described a need for deeper, critical reflection in their reflections.

> Because it may not be able to move forward. It may be a way of moving deeper. I think that that is the thing that we are talking about rather than sort of moving forward.

This research is limited to the learning coaches interviewed and the programs observed. Similar studies need to be done with other coaches and in other programs. A focus on learning coaches new in their practice would help to find out whether they are guided by deep belief systems as well. Other methods, such as critical incidents or case studies, could provide greater depth of understanding of the practice of learning coaches. Since this research used qualitative methods to explore an area in which there was no documented research, additional work should be done to evaluate the validity of the data, findings and interpretation.

How this Research Contributes to New Knowledge in HRD

I would propose two reasons why these 12 coaches were consistent in their practice. First, they were among the most experienced in the research. The literature stressed the importance of personal characteristics like the willingness to learn from experience and one's mistakes and errors (McGill & Beatty, 1995; O'Neil & Marsick, 1994). The experience these coaches had may have provided a different window on the way they made judgements than I might have acquired had I studied only coaches who were early in their practice, but these findings confirmed the need for continued development. Despite their experience, in answer to a question about how they rated themselves as learning coaches, the 12 felt they needed to continuously learn. "I need to learn all the time and I think it's dangerous to be a person who has a routine of doing things."

Second, while the literature placed emphasis on the process of learning from experience in both action learning and the development of the coach (McGill & Beatty, 1995; Pedlar, 1991), my study also shows the importance to learning coaches of looking deeply and constantly at their own belief systems when taking the role of coach. Action learning can be more of an art than a science. As a result, it is important that learning coaches are prepared for their role in a way that will help them become very clear about their own belief systems, in addition to acquiring a repertoire of strategies for helping people learn from experience and practice in their selection and use.

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The Impact of the Dimensions of the Learning Organization on the Transfer of Tacit Knowledge Process and Performance Improvement

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The argument advanced in this study was that the process of within-firm transfer of tacit knowledge is influenced by an organizational environment fostered by the implementation of the seven dimensions of the learning organization (Watkins & Marsick, 1993). *It was also assumed that this process in turn mediates the impact of these dimensions on performance improvement.*

Keywords: Learning Organization, Transfer of Tacit Knowledge, Performance Improvement

Once largely ignored or discounted, knowledge capital is becoming an important component of economic, innovation, and management theories. Developed and developing nations are devoting more resources to knowledge creation, thus increasing the global pool of knowledge. Organizations and government are beginning to recognize the value of knowledge as a leveragable resource. Knowledge has become an important determinant of competitiveness and, by extension, of a nation's economic well-being (Pinelli et al., 1997).

According to leading futurists and business leaders, we have clearly entered the *knowledge era*; the new economy is a *knowledge economy*. Knowledge provides the key raw material for wealth creation and is the fountain of organizational and personal power (Marquardt, 1996). Every company depends increasingly on knowledge: patents, process, management skills, technologies, information about customers and suppliers, and old fashioned experience. This knowledge that exists in an organization can be used to create differential advantage. In other words, it is the sum of everything everybody in the company knows that gives the firm a competitive edge in the market place (Steward, 1991). Knowledge has become as important for organizations as financial resources, market position, technology, or any other company asset. Knowledge is seen as the main resource used in performing work in an organization (Marquardt, 1996).

The link between a firm's knowledge-base and its competitive advantage is recognized by scholars who hold a resource-based view of the firm (Barney, 1991; Rumelt, 1984; Wernerfelt, 1984), as well as by scholars who take an organizational learning perspective (Argyris & Schon, 1978; March, 1991; Senge, 1990).

What these distinct perspectives have in common is a focus on the knowledge-base of the firm described in terms of two critical dimensions (Polanyi, 1958; Nonaka, 1994). The first refers to its tacit nature, i.e. to unarticulated knowledge which is not amenable to simple formalization; while the latter pertains to its explicit dimension, which makes it codifiable in systematic ways.

The tacit component of firm knowledge-base makes its formalization difficult, reducing its ease of transfer across organizational boundaries. Thus, a number of resource -based scholars have argued that tacit knowledge is a valuable source of competitive advantage because it protects a firm against boundary leakages of firm-specific know-how assets (Shuen, 1993). In addition, tacit knowledge has a higher return generating potential when put to work within the boundaries of the firm (DeLeo, 1994).

Though sharing a common starting point, the resource-based view and the organizational learning perspective differ in terms of focus. Resource-based scholars focus on *impediments* to flow of tacit knowledge across boundaries, while organizational learning scholars focus on the conditions affecting *within firm mobilization* of tacit knowledge.

Research in these two areas also can be dichotomized on the basis of *content* versus *process*. Within the resource-based view of the firm, the focus is upon the *content* of knowledge--tacit as well as articulated--building upon *what* individuals and organizations know (e.g. "core competence" Prahalad & Hamel, 1990; and "dominant logic" Prahalad & Betties, 1986), to explain *why* tacit knowledge is not amenable to transfer across firm boundaries. On the other hand, the organizational learning perspective draws scholarly attention to *how* organizations foster the internal transfer of knowledge, shifting the focus to the *process* of knowledge transfer as a source of competitive advantage.

The empirical evidence provided so far by these emerging research perspectives shows that we know very

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little about how and to what extent firms are actually able to affect the transfer of tacit knowledge process within firm's boundaries, nor is there conclusive evidence available which suggests that internal transfer of tacit knowledge translates into performance improvement.

To fill this gap, the present study focused upon the process of within-firm transfer of tacit knowledge and developed some initial steps to move beyond a set of descriptive considerations to the rudimentary elements of a unified framework, one which captured the seven dimensions of the learning organization (Watkins & Marsick, 1993) as determinants of a learning organization environment that impacts the process of within-firm transfer of tacit knowledge.

The central premise on which the framework is based can be described in the following terms: the implementation of these seven dimensions, which are the changes that organizations must make to become learning organizations, foster a learning organization environment that impacts on the transfer of tacit knowledge process. It is also assumed that this process mediates the impact of the seven dimensions of the learning organization on performance improvement.

Theoretical Framework

The Learning Organization

Recent studies suggest that the key to success for an organization is embodied in its ability to implement and appropriate new technology (Willmann, 1991). However, adopting new technology does not ensure its successful integration and its optimum use. A company must be able to adjust to the demands and opportunities the new technology creates in order to realize its full advantage.

There is no simple formula for making the changes required to fully exploit a new technology. Indeed, every organization is unique and must identify and implement the changes required to enhance its own effectiveness. Argyris and Schon (1978) describe this process of identifying and implementing required changes as organizational learning. They suggest that an organization is, at its root, a cognitive enterprise and it learns and develops knowledge. The concept of a learning organization has evolved from the ideas of organizational learning, but it differs in that it includes not only the learning of the organization, but learning within the organization (Ulrich, Von Glinow & Jick, 1993). Learning organizations create intentional processes that accelerate the creation and utilization of knowledge across the system (Marsick & Watkins, 1997). Watkins and Marsick (1993, 1996) delineate the learning organization as one that captures, shares, and uses knowledge to change the way the organization responds to challenges. They describe seven dimensions or action imperatives necessary for organizations to progress toward becoming a learning organization: create continuous learning opportunities (*Continuous Learning*), promote dialogue and inquiry (*Dialogue and Inquiry*), promote collaboration and team learning (*Team Learning*), empower people toward a collective vision (*Empowerment*), establish systems to capture and share learning (*Embedded System*), connect the organization to its environment (*System Connection*), and provide strategic leadership for learning (*Provide Leadership*).

For the purpose of this study, a learning organization was defined as one that is characterized by continuous learning for continuous improvement, and by the capacity to transform itself. It is an organization in which people are aligned around a common vision, sense and interpret their changing environment, and generate knew knowledge that they use to create innovative products and services to meet customers needs (Marsick & Watkins, 1999).

Tacit Knowledge

People know more than they can tell. Personal knowledge is so thoroughly grounded in experience that it can not be express in its fullness. In the last 30 years, the term *tacit knowledge* has come to stand for this type of human knowledge--knowledge that is bound up in the activity and effort that produced it (Horvath, 1999).

The study of tacit knowledge has spanned several disciplines in the social sciences, and its provenance in an earlier, natural philosophy is extensive. Polanyi's (1973) philosophical treatise on personal knowledge, with its distinction between "focal knowledge" and "knowledge of subsidiaries," laid a theoretical foundation. Wagner and Sternberg (1986) define tacit knowledge as work-related practical knowledge learned informally on the job. Sternberg's investigations of tacit knowledge in the workplace helped to move tacit-knowledge research out of the laboratory and into the lexicon of applied social science (Sternberg et al., 1995).

Although not explicitly framed in terms of tacit knowledge, Argyris' studies of defensive reasoning established the reality and consequences of unspoken knowledge within organizations (Argyris, 1990). Nelson and Winter's evolutionary theory of economic growth (Nelson & Winter, 1982) incorporated Polanyi's work on tacit knowledge into a knowledge-based theory of the firm. Working in the same tradition, Kogut and Zander, (1992) showed how tacit knowledge affects the diffusion of innovation within firms and the appropriation of those innovations by competitors. By studying a range of technology-intensive businesses, Leonard-Barton (1995) showed how knowledge embedded in people, tools, and practices can develop within and sustain businesses. Nonaka and Takeuchi (1995) offered a model of organizational knowledge creation in which the socialization of individual tacit knowledge drives a reliable cycle of continuous innovation.

The transfer of tacit knowledge within organizations takes place through dissemination and documentation, which refer to the existence of general-purpose routines, which allow for the mobilization of knowledge beyond the specific tasks for which they have been designed (De Leo, 1994). A number of scholars (Brown & Duguid, 1991; Orr, 1990; Nonaka, 1994) have been focusing on the impact of dissemination modes, such as informal gatherings or information exchanges, which have the prerogative of diffusing tacit knowledge beyond the purpose for which they have been designed. In order to be effective, dissemination modes are coupled with a documentation effort (Orr, 1990; Nonaka, 1994), which allow individual members to capture the value of the ideas and methods which have been made available to them through dissemination mechanisms.

This fairly recent recognition of the importance of knowledge in contemporary society (Quinn, 1982; Nonaka, 1991, 1994; Senge, 1990) has raised many questions concerning how organizations transfer knowledge within firm boundaries (Itami, 1988; Kagono, 1994; Hedlund & Nonaka, 1993).

Conceptual Model

To better capture the relationship between the conditions influencing the process of tacit knowledge transfer and its impact on knowledge performance, a unified conceptual model was proposed; a framework within which different determinants were placed and the relationships between them analyzed. The adoption of a unified conceptual model enabled the researcher to sort out the contradictions that exist when different factors affecting the internal transfer of knowledge are considered collectively. Within the conceptual model shown in, the process of transfer of tacit knowledge is impacted or influenced by a learning organizational environment fostered by the implementation of the seven dimensions of the learning organization. This process is also assumed to have a direct impact or influence on performance improvement.

Significance of the Study

The growing interest developed around transfer of tacit knowledge and its impact on performance has not been matched yet by an equivalent effort to provide empirical evidence supporting the hypotheses at the basis of this research paradigm. In addition, most of the attention has been captured by impediments to mobilizing knowledge, with little concern about the processes and conditions which influence the effectiveness of tacit knowledge transfer within organizational boundaries. Most of the work accomplished to date has largely taken for granted the benefits of within firm transfer of tacit knowledge. Up to now, little effort has been put forward towards measuring the impact of tacit knowledge transfer on performance.

The descriptive richness and variety of the contributions have resulted in a list of considerations, focusing on distinctly unrelated factors, whose impact on the transfer of tacit knowledge has been assumed to be obvious. This study helped to fill this gap by generating empirical evidence relative to the process of within firm mobilization of tacit knowledge and its impact on performance improvement.

The present study contributes to the literature on the emergent knowledge-based view of the firm and knowledge management. The knowledge-based view focuses on the creation, integration, use and protection of knowledge by firms, thereby advancing understanding of the economic influence of knowledge on firms (Spender, 1996). While the effort to advance a knowledge-based view of the firm provides a theoretical contribution toward the management of knowledge, it too is plagued by existing difficulties in measuring transfer of tacit knowledge (Bloodgood, 1997). This study contributes to learning organization theory. The contribution of the seven dimensions of the learning organization to the creation of an environment conducive to the transfer of unarticulated knowledge will be examined. Implications will be drawn that might be adopted and used by practitioners or adult education researchers devoted to the study and/or implementation of learning organizations.

This study provides adult educators and human resource developers with empirical data on which learning organization characteristics most impact on the process of transfer of tacit knowledge, knowledge performance, and financial performance. This data could be used to create organizational systems, programs, and/or interventions aimed at the optimization of the effects of these dimensions or action imperatives in order to maximize the benefits of the transfer of tacit knowledge.

Methodology

For the purpose of this study, learning organization environment, tacit knowledge transfer and performance improvement were viewed as latent variables. A latent variable is a construct or hypothetical "entity." They are unobserved variables whose "reality" we assume or infer from observed variables or indicators (Kerlinger, 1986). Latent variables are not directly measurable, although they can be indirectly identified by a set of measurable indicators. The latent variable "Learning Organization Environment" was identified on the basis of seven indicators or dimensions: continuous learning, empowerment, team learning, embedded systems, systems connections, dialogue and inquiry, and providing leadership. The latent variable "Tacit Knowledge Transfer" was identified on the basis of two indicators: the level of knowledge dissemination and the extent of knowledge documentation. "Performance Improvement" was identified on the basis of two indicators: the levels of knowledge performance and financial performance. The seven dimensions of the learning organization, that is to say the degree to which each dimension has been addressed in the firm, were considered the independent variables which foster the necessary environment for transfer of tacit knowledge to occur.

Instrumentation

The initial data collection instrument for this study was a survey composed of six parts: items to measure the dimensions of the learning organization, items to measure dissemination and documentation of tacit knowledge, items to probe on organizational culture as an enabler of the process of transfer of tacit knowledge, items to probe tacit knowledge utilization, items to measure knowledge performance and items to gather demographic information.

The items to measure the dimensions of the learning organization and knowledge performance were those that appear in the Dimensions of the Learning Organization Questionnaire (Watkins & Marsick, 1997). The items to measure the level of tacit knowledge dissemination and the extent of tacit knowledge documentation were adapted from Kogut and Zander, 1993; De Leo, 1994; the Knowledge Management Assessment Tool (O'Dell & Grayson, 1998); and the Learning Organization Profile (Marquardt, 1996).

The complete data collection instrument was translated, adapted, and validated so it could be used with Spanish-speaking populations (Hernandez, 2000). Pilot testing of the translation was completed through administration of the instrument to members of the intended audience in order to determine content and predictive validity and if items elicit the same response regardless of translation. The "organizational culture," as an enabler of the process of transfer of tacit knowledge, and "tacit knowledge utilization" constructs were eliminated due to lack of divergent validity of the related items and due to the fact that they became irrelevant to the study as the study evolved.

Data Collection

A purposive, non-random sample was used. The target population was medium to large size private manufacturing corporations located in Bogotá, Colombia. To be included in the sample, a company would have to meet several criteria: it must be 1) private, 2) engaged in manufacturing operations, 3) medium to large size (number of employees was the only metric used to determine its size.), and 4) in operation at least 10 years.

Once the target population to be sampled was determined, the availability of a list of population elements from which a sample may be drawn was assessed. Worldwide or regional lists of manufacturers can be obtained from sources such as Bottin International. This source registers names and addresses of more than 300,000 firms in 100 countries, under 1,000 product classifications, by trade and by country.

In this particular study, two lists were used: a) The Latin American Companies Handbook, b) Latin America 25,000/Dun & Bradstreet's key business directory. Thirty companies enlisted in both lists were selected and then information about the company itself was drawn. Initial contact with the company was by e-mail to the executive director, explaining the study and requesting authorization to survey employees at different levels within his/her organization. Eight companies agreed to be part of the study. Data collection was done on site. The final copy of the instrument was distributed and administered directly by the researcher and a total of 906 valid responses were properly collected. The interest in Colombia stems from the fact that Colombia is a member of the most important trading block of the region: the Andean Pact. It has also a literate and dependable work force, a robust private sector, competent macro-economic management, political stability, and a good record of economic development (World Bank, 1999).

Data Analysis

The data collected was entered and analyzed using the LISREL 8.30 statistical package (Jöreskog & Sörbom, 1999). The unit of analysis was the aggregate data collected from private manufacturing corporations located in Bogotá, Colombia.

The research question, to what extent is the process of tacit knowledge transfer impacted or influenced by the seven dimensions of the learning organization and to what extent does this process in turn impact or influence performance improvement as depicted in the conceptual model? called for structural equation modeling (SEM). Various strategies may be employed in empirical applications of structural equation models: strictly confirmatory, model generation, and model comparison (Jöreskog, 1993). The model generation strategy was used in answering this question.

In the structural equation model shown in Figure 1, the latent construct LOE is identified by 0_1 on the basis of seven indicators: Y_1 (CONTLEAR), Y_2 (DIALINQU), Y_3 (TEAMLEAR), Y_4 (EMBEDDED), Y_5 (EMPOWERM), Y_6 (SYSCONNE), and Y_7 (PROLEADE). The latent construct TTK is identified by 0_2 on the basis of two indicators: Y_8 (DOCUMENT) and Y_9 (DISSEMIN). The latent construct PI is identified by 0_3 on the basis of two indicators: Y_{10} (KPERFORM) and Y_{11} (FPERFORM). The structural relationship coefficients or directional 'influence' linkages are identified by the Greek letter "beta" ($\exists$). Namely, $\exists_{21}$ (influence of 0_1 on 0_2), $\exists_{32}$ (influence of 0_2 on 0_3), and although not implied conceptually $\exists_{31}$ (influence of 0_1 on 0_3).

The structural relationship coefficients, their significance and their magnitude provided an important criterion for model evaluation, termed the plausibility criterion, referring to a judgment made about the theoretical argument underlying the specified model (Saris & Sronkhorst, 1984). According to this criterion the decision regarding the correct model should also be based on the theoretical correctness of the model demonstrated by its structural relationships. There has to be some balance between the fit indices and the theoretical predictions regarding the relationships among research variables. The accuracy of the theoretical predictions was tested by the structural relationships in the model shown in Figure 1.

The factor loadings linking latent constructs to indicators are marked with the Greek letter "lambda" (8_i). Factor loadings for the indicators of the LOE are identified by: 8_1, 8_2, 8_3,
8_4, 8_5, 8_6, and 8_7; for the indicators of TKT are identified by 8_8 and 8_9; for the indicators of PI are identified by 8_{10} and 8_{11}. Statistical significance of factor loadings was judged on the following t-test criterion: $| t | \exists 2.00$ (Jöreskog & Sörbom, 1996: 103).

Results

Factor loadings were analyzed in order to assess statistical significance by their t-value ($| t | \exists 2.00 \Rightarrow$ statistically significant), and to ascertain their actual contributions to their respective latent construct. The maximum value they could have is 1 due to the fact that they are derived from a correlation matrix. Their value were relatively high and homogeneous with the exception of the factor loading for *financial performance* (FPERFORM).

In order to investigate if there was any direct structural relationship between LOE (η_1) and PI (η_3) an "influence" path ($\exists_{31}$) not implied in the original conceptual model was included (see Figure 1).
As can be seen in Table 2, the t-values for the structural coefficients β_{21} (20.34) and β_{32} (4.09) are greater than 2 and positive. Thus, these coefficients are conceptually attuned to the model and statistically significant. In the case of the coefficient β_{31} (-0.69), two observations were made. First, the inferences that could be drawn from its negative sign are conceptually inadmissible, and second $| t | < 2$, rendering this coefficient statistically insignificant. Therefore, it was unbiased to say that there was not a direct structural relationship between the LOE and PI, and that any indirect influence was mediated by TTK.

Goodness of fit statistics were analyzed and the model was refined until the Bentler-Bonett normed fit index (NFI), Bentler-Bonett non-normed fit index (NNFI), the comparative fit index (CFI), the relative fit index (RFI), the root mean square error of approximation (RMSA) indicated a 'very good' fit.

Conclusions

The results suggest that the impact of the dimensions of the learning organization on knowledge performance is mediated by the tacit knowledge transfer process. Linear structural relations analysis revealed the significance of the dimensions 'empowerment' and 'provide leadership' in the implementation of a learning organization. Financial performance was found to structurally load poorly on the latent variable PI (performance improvement), suggesting the need for a richer conceptualization of this factor or for the development and inclusion of other indicators of performance improvement.

The conceptual model presented here makes a valuable contribution to the effort to move Learning Organization research forward by incorporating transfer of tacit knowledge as one of the many possible mediators of the relationship between the dimensions of the learning organization and performance improvement. In addition, the findings are also expected to enhance and deepen the understanding of issues relating to LOE, TKT, and PI in organizations, which are useful to building theory in learning organization and knowledge management studies. Finally, it is hoped that this study will encourage or at least arouse interest in future research in similar areas, as more research on these subjects is necessary, especially in Latin America.

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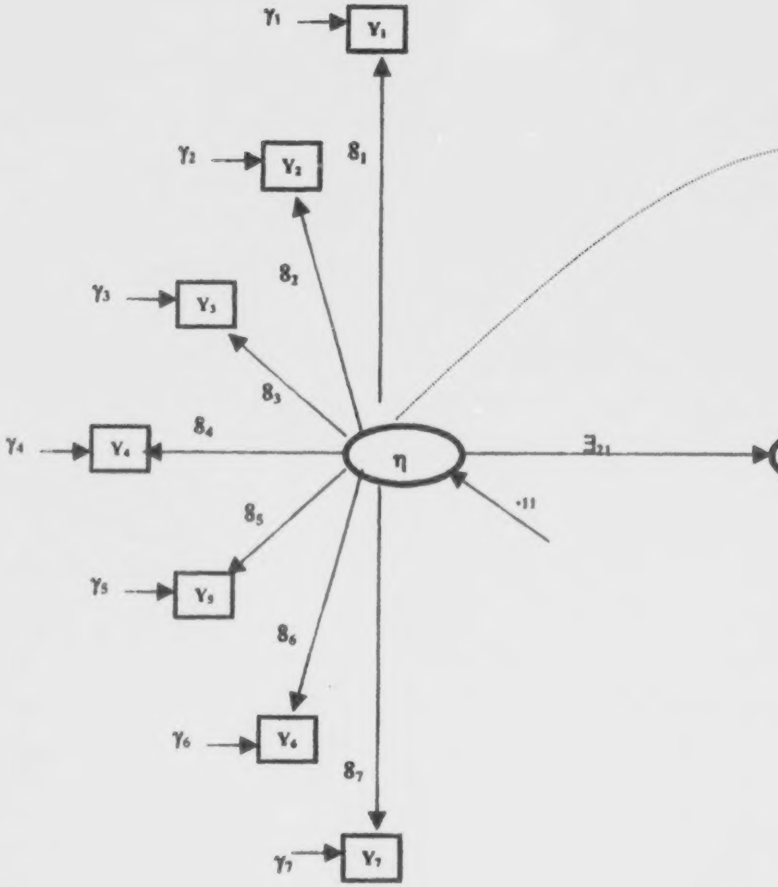
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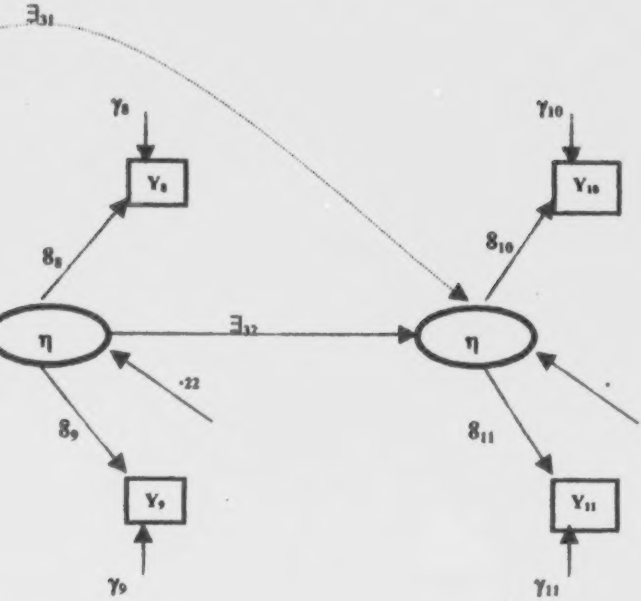
Figure 1. Structural Equation Model

ation Model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The Relationship between Distance Coaching and the Transfer of Training

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This paper examined the relationship between distance coaching, a post-training strategy, and the transfer of training. More specifically, the paper studied the relationship between(1) distance coaching activities and transfer of training, (2) trainees' perceptions on coaching and transfer of training, and (3) distance coaching activities and trainees' perceptions on coaching.

Keywords: Transfer of Training, Distance Coaching

Global competition, technological advancement, and transformation of the traditional workplace are raising the pressures to improve performance in all types of organizational settings (Broad, 1997). Training is one of the most frequently employed human resource development (HRD) strategies to improve employee and organizational performance. However, a series of studies indicated that less than 15 percent of what people learn in training actually transfers to the job in a way that enhances performance (Baldwin & Ford, 1988; Broad & Newstrom, 1992).

Statement of the Problem

"The transfer of learned knowledge and skills from instructional programs remains a paramount concern for training researchers and practitioners" (Burke, 1997, p. 115). Since the desired outcome of training is performance improvement, no matter how good the training program is, it is inadequate if it does not produce significant new behaviors in the workplace (Leifer & Newstrom, 1980). It is recognized that the period after training seems to be the most crucial for facilitating transfer, several authors suggest that post-training interventions need to be explored (Baldwin & Ford, 1988). However, rigorous empirical investigation in this area remains scant (Burke, 1997).

Coaching is being increasingly exploited as a post-training strategy to enhance transfer (Olivero, Bane, & Kopelman, 1997). Coaching is an ongoing, follow-up process designed to help the trainees effectively apply knowledge and skills learned in training and overcome the barriers to improve performance (Lawson, 1997; Joyce & Showers, 1982). However, practitioners' assertions on coaching, "backed by scant research-need to be empirically tested: does coaching significantly enhance the application of trained skills?" (Miller, 1989, p.2). The development of Internet-based technologies has provided a solution to the problem of limited post-training contact to support transfer of training (Johnson, Wentling, & Wadsworth, 1999), but too little is known about using Internet effectively for educational purposes (Locatis & Weisberg, 1997). There is a need to study if coaching strategies can be employed effectively with the aid of communication technologies.

Research Question

This study was guided by the following research questions:

1. What is the relationship between coaching activities and the transfer of training?
2. What is the relationship between perceived coaching success and the transfer of training?
3. What is the relationship between coaching activities and perceived coaching success?
4. What communication technologies were used?

Theoretical Framework

Transfer of Training

Since 1980's, transfer of training theories emerged to highlight the interaction among the trainee

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characteristics and the work environment as the primary source of influence on transfer of training (Baldwin & Ford, 1988; Broad & Newstrom, 1992). Some trainee characteristics thought to affect transfer have been suggested in the literature: motivation, self-efficacy, and self-expectancy. Motivation to transfer can be described as "the trainees' desire to use the knowledge and skills mastered in the training program on the job" (Noe, 1986, p. 743). Self-efficacy refers to an individual's judgment on "how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122). Expectancy theory proposes that people interact proactively with their environments based on their expectancies about the likelihood of the desired outcomes (Howard, 1989).

Work environment factors that affect transfer can be classified into three categories: organizational climate, social support, and task support. Organizational climate is generally defined as the perceived structures, values, systems, and qualities of a particular organization (Jones & James, 1979). The primary sources of social support are management/supervisors, work groups, and trainers. The existing literature does not place sufficient emphasis on trainers' roles in transfer following the training. Broad and Newstrom (1992) recognized the transfer responsibility of trainers has not always been recognized or fully accepted. Peters and O'Connor (1980) described task support as the availability of job-related information, tools, materials, and required services and help from others.

The traditional transfer strategies are not sufficient for achieving substantial positive transfer because they focus only on the period of acquisition of skills within a training process. The recent literature has focused primarily on the period after training as the crucial time to facilitate positive transfer (Michalak, 1981). Many post-training strategies have been suggested in the literature. The main purpose of these strategies is to build a facilitating transfer climate through forming a support group or buddy system to support transfer. Specifically, these strategies attempt to help trainees clarify the expectations and goals for transfer, provide feedback, provide social, emotional, and task support, and thus increase trainees' motivation and self-efficacy to transfer (Broad & Newstrom, 1992).

Coaching

Coaching practices are common in the field of athletics, management, and education. Rackham (1979) cited evidence that most skill training is wasted without management coaching to sustain the newly acquired skills. Michalak (1981) found that coaching activities by managers are essential to the transfer and application of skills learned in the classroom to the work situation. Joyce and Showers (1980) recommended that future research with an emphasis on the effects of coaching for application of training was needed.

The literature review revealed that there are not universal coaching activities and processes. Even though the actual appearances of coaching procedures are different, the main coaching activities can be drawn from these points: (1) building an non-threatening environment, (2) identifying and analyzing performance gap, (3) setting performance expectation and goals, (4) formulating action plan to accomplish that goal, (5) providing constructive feedback, (6) providing resources, (7) providing psychological and emotional support, (8) problem-solving, and (9) observing and monitoring the progress to achieve the goal (Lawson, 1997; Olivero et al., 1997).

In summary, the main components of coaching are quite similar to the techniques of transfer strategies. The literature also indicated that coaching activities could enhance trainees' self-efficacy, self-awareness, and motivation to transfer (Joyce et al., 1980). Therefore, coaching appears to be a process consisting of a set of transfer techniques.

Methodology

This study was explorative and correlational in nature. In order to measure research variables and assess their relationships, this study used both quantitative and qualitative approaches to collect and analyze data. "As many of the phenomena we examine are amorphous or difficult to measure directly, these phenomena will require multiple measures to adequately assess the issue" (Worthern, et al., 1997, p.342). The demands of rigor in this study were addressed through employing multiple measures to present multiple perspectives from multiple information sources.

Population and Sample

The sample for this study was drawn from trainees of an international training program on "training of trainers." The training program was sponsored by the World Bank, Asian Institute of Technology, and Department of Human Resource Education at the University of Illinois at Urbana-Champaign. A total of 28 participants representing 18 different countries from 5 continents attended this training program. All program participants met in

Bangkok in June of 1998 to attend a three-week training course. Six collaborative peer learning groups (PLG) were established with each group consisting of 5-6 participants and an assigned coach. PLGs were created based on participants' fields of subject-matter and areas of interest. Each participant was required to develop a detailed action plan for the next distance coaching phase.

Distance coaching was conducted during July-December of 1998 after the training session. The Internet-based distance learning methods and facilities were established to facilitate and support participants to practice their newly acquired knowledge and skills and collaborate with his or her "virtual" learning group and online coach. Internet-based technologies used included e-mails, asychronous WebBoard postings, and synchronous text chats.

The sample of this study was the 28 participants who completed the ITQ program. All 28 participants are senior or master trainers in their respective institutions and have training-related experiences. About 93% of them have at least bachelor degrees. Twenty-three of the 28 participants were from Asia, and the rest are from Europe, South America, and Africa. All the six coaches possess doctorate degrees, hold faculty positions in universities. Three of the coaches were from the United States, one from Thailand, one from Malaysia, and one from Australia.

Instrumentation

Four instruments were developed to collect data for this study: (1) Transfer Assessment Report (TAR), (2) Questionnaire on Transfer of Training, (3) Codes of Coaching Activities, and (4) Online Questionnaire on Perceived Coaching Success. These instruments were used to measure the three research variables: transfer of training, coaching activities, and perceived coaching success. The researcher decided to use Ford's et al.'s (1992) and Quinones et al.'s (1995) approaches to measure transfer of training in three dimensions because their model corresponded to what this researcher wanted to know about the transfer in this study. These three dimensions are: (a) breadth of transfer: the number of distinctive trained tasks are performed; (b) Frequency of Transfer: the number of times trained tasks are performed; and (c) difficulty of Transfer: complexity or difficulty level of performed tasks.

Each participant was given a guideline for writing the TARs. The purpose of the TAR was to guide the participants to reflect and document the tangible transfer outputs and evidences.

The questionnaire on transfer of training, complementing the TAR, measured three dimensions of transfer. First, the researcher developed a transfer list for each participant based on his or her TAR. This list specified what knowledge and skill element was transferred. Second, each participant was asked to rate how frequently he or she applied each knowledge/skill element on the transfer list on a scale from 1 to 5, with 1 being "never "and 5 being "always." Third, the participant was asked to rate the perceived difficulty level for each applied knowledge/skill element on the transfer list on a scale from 1 to 5: with 1 being "very easy" and 5 being "very difficult."

In order to analyze and count coaching activities from communication logs, ten predetermined codes on coaching activities were generated from review of literature by the researcher. The ten codes were: (1) defining performance expectations, (2) defining coaching topics, (3) scheduling coaching sessions, (4) building relationships with participants, (5) providing resources to participants, (6) providing feedback to participants, (7) facilitating problem-solving, (8) developing the action plan, (9) addressing participant concerns, and (10) monitoring progress.

The purpose of the online questionnaire on perceived coaching success was to obtain participants' perceptions of the distance coaching process. Through an extensive literature review, the researcher identified 10 major factors contributing to successful coaching: (1) preparation for coaching, (2) goal-setting, (3) interaction with coach (4) relationships with coach, (5) feedback from coach, (6) resources from coach, (7) concerns from coach, (8) encouragement from coach, (9) disciplining coaching process, and (10) monitoring progress. A 39-item questionnaire was developed to address these factors on a five-point Likert scale (from "strongly disagree" to "strongly agree").

Data Collection and Analysis

Due to incompleteness of data, one PLG with three participants was dropped for further study. Three types of communication logs reflecting the interaction between the coach and participants were chosen for content analysis in this study: group asynchronous WebBoard postings, e-mails between coaches and participants, and group synchronous text chats. These communication logs occurred during distance coaching phase from June-December of 1998 were captured electronically and printed. The transfer assessment reports of participants were obtained from the principal coach in April of 1999 after getting permission from the participants. The questionnaires on transfer of training were sent through e-mail attachments and the questionnaire on perceived coaching success was put in a Website. After multiple follow-ups, 20 out of 25 participants responded, giving a response rate of 80%.

The sum of distinctive knowledge/skill elements on the transfer list created from the TAR was the measurement of breadth of transfer. The mean of ratings on frequency was the measurement of frequency of transfer. The mean of ratings on difficulty was the measurement of difficulty of transfer. To be able to combine the results on all three dimensions and measure the overall transfer, the result on each dimension was calculated z-score, and the sum of the three z-scores was the result of the overall transfer.

The communication logs occurred during distance coaching phase were subject to content analyses for coaching activities with the ten pre-determined codes. An adapted form of the Contact Summary Form suggested by Miles and Huberman (1994) was used in coding qualitative data. Sentences or paragraphs in communication messages were the primary units of coding. After coding, each code was assigned to each participant who was involved in this communication. Finally, the frequency of each code for each participant was summed.

Factor analysis and reliability analysis was conducted for instrument on perceived coaching success. Then the mean for each success factor was calculated. The average rating of the ten factors is the measurement of the overall coaching success. Bivariate correlations and stepwise multiple regressions were the primary methods used to assess the relationships among the three research variables: transfer of training, coaching activities, and perceived coaching success.

Results and Conclusions

Relationship Between Coaching Activities and Transfer of Training

The results of this study indicated that the following five of 10 coaching activities had significant relationships with the transfer of training:

1. Providing Resources. This study finds that the coaching activity *providing resources* had a significant positive relationship with breadth of transfer ($r=0.50$, $p<0.05$) and explained about 25% of variance in breadth of transfer. Throughout this study, *providing resources* included coaches' activities to give participants information, suggestions, materials, and express willingness to offer help and consultation. This finding is consistent with task support required for transfer in the transfer literature. Employees who do not have the resources (i.e., time, materials, information) to complete work assignments successfully become frustrated and are not productive during the work day (Peters & O'Connor, 1980), nor developing or practicing ways to apply new knowledge or skills (Kehrhahn, 1995). Often expressions of support have been found to be helpful as well (Stowell, 1987).

2. Building Relationships. It was also found in this study that coaching activity *building relationships* had a significant positive relationship with difficulty of transfer ($r=0.45$, $p<0.05$) and overall transfer ($r=0.46$, $p<0.05$) and explained 21% of the variance in the overall transfer. Activities of *building relationships* in this study included: exchanging good wishes, expressing interests and concerns about each other's family members, holidays, trips, job changes, and making jokes. Lawler (1973) suggested that affiliation or social interaction and identification with a social group is one of the extrinsic factors that inspire people in work organizations to perform. *Building relationships* may have enhanced participants' motivation to transfer through strengthening participants' association and interaction with their coaches.

3. Problem-Solving. This study reveals that coaching activity *problem-solving* had positive relationship with breadth of transfer ($r=0.50$, $p<0.05$) and negative relationship with difficulty of transfer ($r=-0.58$, $p<0.05$). In this study, communication technologies were the vehicles that allowed the delivery of coaching activities. Therefore, helping the participants to solve technical problems to encourage technology use and sustain enthusiasm to transfer became important. On the other hand, the coach and the participant spent time problem-solving might be indicative of more time participants encountered technical problems. Frequent encountering of technical hardship may block the transmission of coaching activities to facilitate transfer of training and lead to decreased participant motivation to try more challenging tasks.

4. Defining Expectations. Stepwise multiple regression revealed that the more the coaches expressed their *expectations* to expect participants to make progress toward work plans and preparation for the next evaluation phase, the less difficult tasks the participants tried. These activities which periodically communicated expectations were actually a kind of reminding and monitoring activity that held participants accountable for their progress. Research conducted over the past few years indicates that accountability can result in performance improvements (Schlenker, 1986). However, intensified information processing associated with accountability does not always guarantee improved performance. In fact, intensive information processing that induces high stress and anxiety lead to reduction in performance (Schlenker & Leary, 1985). In transfer literature, outcome expectations of individuals are known to have an effect on their behaviors. For instance, people with low outcome expectations tend to procrastinate potentially difficult tasks, work less hard on them, easily abandon the tasks when encountering obstacles, and attribute low abilities instead of efforts to keeping them from succeeding (Bandura, 1977). Schlenker and Leary (1985) proposed that outcome expectations will be lowered when: (a)audiences are perceived to be more demanding, less supportive, and more evaluative, (b)situations are more demanding, difficult, evaluative, or ambiguous, and (c) an actor's self-perceived skills and resources to the task are lower.

In this study, the more the coaches expressed their expectations, the more the participants may have perceived their coaches to be demanding or evaluative. *If this perception is accompanied by insufficient support* from the coaches, constraints from participants' work environment, tough tasks, or low individual abilities, coaches' expectations may discourage participants to try more difficult tasks.

5. Scheduling Coaching. Stepwise multiple regression revealed that, as a predictor, coaching activity *scheduling coaching* was negatively associated with breadth of transfer and with difficulty of transfer. *Scheduling coaching* in this study were coaches and participants' activities regarding the scheduling of synchronous chats. This may imply that some coaches had difficulties to organize the chats with their groups due to low group cohesion. This may also mean some coaches were more democratic in scheduling coaching and took extra effort to have everyone's input in scheduling. Therefore, effective ways to schedule coaching with groups of people from different countries with different states of technology and time zones needed to be given more consideration.

Relationship Between Perceived Coaching Success and Transfer of Training

This study measured participants' perceptions on ten factors that are critical for the success of coaching, the results indicated that five of the ten factors had significant relationships with the transfer of training.

1. Preparation for Coaching. This study concludes that the participants' perceptions of how well the coach *prepared for coaching* had a significant positive relationship with breadth of transfer ($r=0.51$, $p<0.05$) and with overall transfer ($r=0.68$, $p<0.05$), and explained about 26% variance in breadth of transfer and about 46% of variance in overall transfer. Perceived *preparation for coaching* in this study measured the extent to which the participants perceived that the coach prepared well for the coaching, carefully reviewed the documents that have been submitted, and knew the issues for coaching. This finding confirms Stowell's (1987) study on effective coaching: one of the most striking findings from their interviews with coaches and employees was the amount of emphasis given to planning and preparation prior to the coaching discussion. Employees appeared to easily pick up the level of preparation of their coaches. Therefore, this finding suggests that a well-prepared, well-structured, and purposeful coaching have importance for transfer of training.

2. Interaction with Coach. This study also reveals that perceived *interaction with coach* was positively related to frequency of transfer ($r=0.72$, $p<0.01$) and overall transfer ($r=0.50$, $p<0.05$). Perceived *interaction with coach* explained about 52% of the variance in frequency of transfer. Perceived *interaction with coach* in this study measured to what extent both coaches and participants brought their experiences, expertise, ideas, and needs to the coaching process. This finding is consistent with Huczynski and Lewis's (1980) description of a supportive supervisor required in a favorable environment for transfer. This supervisor should be one who is open to suggestions, listens to new ideas, and allows use of new methods. This finding suggests that if participants are given more opportunities to have their contributions and inputs to the coaching process, they may have higher transfer performance.

3. Relationships with Coach. A significant positive relationship between perceived *relationships with coach* and frequency of transfer was also found in this study ($r=0.66$, $p<0.01$). Perceived *relationships with coach* in this study measured to what extent the coach and the participant had mutual respect, trust, and feeling of freedom to express themselves. This finding confirms the literature which shows that trainees attempting transfer need emotional support that make them feel secure, respected, loved, and admired (Jacobson, 1986). Tracy, Tannenbaum, and Kavanaugh (1995) pointed out social interactions and work relationships is one component of continuous learning environment in which transfer of training will be enhanced.

4. Encouragement from Coach. This study indicates that there was a significant, positive relationship between the perceived *encouragement from coach* and overall transfer ($r=0.55$, $p<0.05$). Perceived *encouragement from coach* measured to what extent the participant felt that the coach was optimistic about the participant's abilities to succeed and recognized participant's achievement and success. The positive correlation is consistent with the literature highlighting that trainees' perceptions of supervisory and co-worker encouragement is a component of social support constituting environment favorability (Kehrhahn, 1995). Noe (1986) suggested that intention to transfer will be positively affected if interventions enhance confidence in learners' abilities to use the new skills.

5. Monitoring Progress. Stepwise multiple regression reveals that as a predictor factor, perceived *monitoring progress* was negatively associated with the frequency of transfer. In this study, *monitoring progress* measured to what extent the coach maintained contact with the participants regarding the progress made toward planned activities. *Monitoring progress* was also a kind of activity to hold participants accountable for their work plans and the next phase for evaluations. This may lead to lower outcome expectations due to associated stress and anxiety, and thus decreased performance level.

Relationship Between Coaching Activities and Perceived Coaching Success

Coaching activities *defining expectations* and *defining coaching topics* had significant, negative relationships with a series of perceptions of participants about the coach and the coaching including: (a) *preparation for coaching*, (b) *concerns from coach*, (c) *encouragement from coach*, and (d) the overall coaching success. Review of communication logs indicated that *defining coaching topics* were primarily coaches' activities to set the agenda for synchronous chats. Generally, there were two themes within the agenda: reporting the progress of the work plan and preparing for the evaluation meeting at Bangkok. Therefore, *defining coaching topics*, similar to *defining expectations*, was also a type of "evaluative" activity, which may be interpreted by participants to be more demanding, less considerate, and less encouraging. This finding is consistent with the effect of accountability and low outcome expectations which were discussed in the section on "Relationship Between Coaching Activities and Transfer of Training." Similarly, coaching activities *defining coaching topics*, *monitoring progress*, together with *scheduling coaching*, were each significantly, negatively related to perceived *feedback from coach*. These evaluative, demanding activities may place pressures on participants instead of providing supportive feedback for future improvements.

The coaching activity *addressing participants concerns* had significant, positive relationship with perceived *relationships with the coach*. *Addressing concerns* in this study were coaching activities such as addressing participants' concerns and difficulties in a sympathetic and understanding way. In Ennis et al's (1989) study on characteristics of an effective learning environment, they described communication in effective learning environments as communications that are "empathetic" and "concerned." These types of communications help establish the atmosphere of consideration, which is an important component of social support (Noe, 1986). This finding suggests that showing considerations to participants in words is one way for them to perceive a better relationship with the coach.

Use of Communication Technologies

This study revealed that synchronous chats carried the majority of coaching activities (about 40%), while e-mails carried about 31% and asynchronous WebBoard postings carried about 29%. *Providing resources, building relationships*, and *scheduling coaching* were the major types of coaching activities (23%, 21%, and 15%, respectively). Synchronous chats carried the majority of coaching activities of *building relationships* (56%) and *providing resources* (52%). This suggests that participants may prefer immediate interactions with the coach toward building relationships and seeking resources.

Conclusion

This study concluded that both actual coaching activities that occurred and participants' perceptions about the coaching had significant relationships with the transfer of training. This study added support to the existing body of knowledge that providing social support and task support to trainees can improve transfer of training. The following supportive coaching activities and skills can facilitate transfer of training: building relationships with training participants, providing resources, giving encouragement, communicating interactively, solving problems, and well preparing for coaching. These activities can help participants be more active in seeking the coach's support in various forms and enhance participants' motivation to transfer. Some evaluative or demanding coaching activities and skills should be used with caution such as monitoring progress and defining coaches' expectations. These activities intended for improving performance may induce pressures and anxieties and thus lower performance.

It was thought that coaching activity *providing feedback* to participants should have an important effect on transfer of training though this study did not confirm this assumption. The effect of feedback is influenced by situational and personal factors such as: (a) attributes of the supervisors, (b) attributes of individuals receiving the feedback, and (c) the message itself (Ashford & Cummings, 1983). In this study, since the feedback about transfer effort was given by external HRD professionals, the effect of feedback on transfer of training may be not as powerful as the feedback given by participants' immediate supervisors or managers.

Implications

Since the components of online coaching were identified from non-distance coaching literature, the researcher of this study suggests that the implications of this study can be generalized to coaching in non-distance settings. However, this study has a small sample size, which may limit its capacity to be generalized to a large group of people. It will be beneficial to conduct a similar research with a larger sample size and with different types of organizations in order to create the results that can be generalized to other settings.

Implications for HRD Practitioners

The existing literature focuses on sources of social and task support from the trainees' work environment, especially trainees' managers, supervisors, and co-workers. The findings generated from this research evidenced that the social and task support provided by HRD professionals could also enhance transfer of training. These support activities may be important for trainees' transfer attempt especially in the absence of organizational and management support. Therefore, HRD practitioners should take a more active role in facilitating transfer of training through coaching during the post-training period. Building a post-training support system is important to be incorporated as a component of the training program.

Based on the results related to the effectiveness of each coaching activity and perception on coaching, HRD practitioners should equip themselves with supportive coaching skills and carefully examine the effects of those evaluative coaching activities in an ongoing effort to improve individual performance.

HRD practitioners should be able to communicate with business managers that they can help trainees transfer what they learned into on-the-job performance. HRD practitioners can teach and train corporate management on how to better build a supportive environment for transfer of training and effective coaching, and how to act as good coaches to help trainees transfer their training. HRD practitioners can also build a joint coaching relationship with trainees' managers and practice the most effective ways to share the coaching activities.

HRD practitioners should continue to explore the potentials of technologies for supporting transfer of training.

Implications for HRD Educators

HRD educators should revise the curriculum to incorporate transfer of training as an important component. HRD educators should prepare students with the understandings, capacities, and techniques necessary to develop and implement post-training interventions to enhance transfer. HRD educators should educate students to take a comprehensive view on transfer of training and consider three factors: work environment, trainee characteristics, and instructional design.

Implications for HRD Researchers

HRD researchers should continuously explore the post-training interventions such as coaching strategies that may be employed by HRD professionals to facilitate transfer of training.

HRD researchers should examine the influences of trainees' work environment and trainee characteristics on the effectiveness of coaching. Numerous transfer studies have confirmed that work environment and trainee characteristics factors have influences on transfer of training. It might be beneficial to examine if coaching can cope with or neutralize some of the negative environment factors, which environment factors can limit the effectiveness of coaching, and how to take trainee characteristics into account wisely when implementing coaching strategies.

HRD researchers should also compare the effectiveness of face-to-face coaching with that of distance coaching. The use of technologies in training and education settings is still a new phenomenon and the impact of technologies on communication requires further study. A comparative study between face-to-face coaching and distance coaching may lead to an insightful understanding on the advantages and disadvantages of distance coaching, so that HRD professionals can make informed decisions when implementing distance coaching.

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Redefining Human Resource Development: An Integration of the Learning, Performance, and Spirituality of Work Perspectives

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Three fundamental perspectives dominate the debate about what the goals of HRD should be – the learning, performance and spirituality of work perspectives. This paper describes an effort to articulate the tensions between these perspectives, clarify their underlying values, and examine how seemingly discordant values can be integrated into a unified conception of HRD. As a result, new statement of purpose for HRD is presented that the authors believe reflects the underlying synergy of these perspectives.

Keywords: Human Resource Development, HRD Purpose, HRD Goals

HRD has been called a field in search of itself (Watkins, 1990) and a good deal of literature has emerged in the last five or more years aimed at describing what is or should be the purpose of HRD. In general, this literature approaches the definition of purpose from at least three different perspectives that can be characterized as the learning, performance, and spirituality of work perspectives. The debate among these different perspectives has at times been heated, has generated little consensus, and has done little to move the field forward in terms of a philosophy of purpose. It is, as Ruona and Lynham (1999, p. 215) have pointed out,

> . . . a conversation having us – that is, . . . a conversation that is ongoing and becomes the prominent focus such that little else actually happens except the having of the conversation. Very few new thoughts are generated, positions are defended, tradition weighs heavy, and very little progress is made in understanding and creating new meaning.

This paper reports on a journey undertaken by a small group of HRD scholars and practitioners to analyze the tension and gulf between these perspectives. The context was the joint Pre-conference on Integrity and Performance in HRD at the 2000 Academy of Human Resource Development international conference held in Raleigh, North Carolina. Our goal in this preconference was to clarify the fundamental values about what HRD should be and to explore if and how these values could be woven together. Our efforts led us to articulate a new statement of purpose for HRD that we believe reflects the synergy of the learning, performance, and spirituality of work perspectives:

> *The purpose of HRD is to enhance learning, human potential, and high performance in work-related systems.*

The impetus for this effort came out of a concern shared by the participants and articulated elsewhere that the apparent disparity in perspectives and values could threaten HRD's contributions and, ultimately, its sustainability and the sustainability of organizations, society and the ecosystem (Hatcher, 1999; Ruona, 2000). Although our goal was to find a common ground that celebrates the diversity of values in our field, our intent was not to be reductionist or to delimit the field through rigorous definition. Nor do we suggest the statement of purpose presented here represents a finished end product. We believe, however, that the new statement of purpose provides a starting point for discovering the unity in our field. We hope that this effort represents what will be an ongoing process of reflecting on, clarifying, and articulating a meaningful and sustainable philosophy of HRD.

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Historical Context

The Academy of Human Resource Development has offered pre-conferences as part of its annual international research conference since 1997. These pre-conferences are designed to provide a venue for dialogue and discussion of contemporary research and practice issues facing HRD scholars and practitioners. They also provide professional development opportunities for HRD scholars and practitioners.

The Performance Pre-conference had customarily focused on theory, definition, research, and application of performance improvement. However, one of the themes of the 1999 Performance pre-conference became a discussion of the "tension" between two perspectives in HRD, the holistic learning and performance perspectives.

Since its inception the Integrity Pre-conference has addressed issues surrounding spirituality, meaning in work, how individuals conceptualize the meaning of work, and how these concepts influence learning. In 1999 the pre-conference's focus was on the role of spirituality in work and it manifestation in work environments and work-related learning, and how these non-instrumental, non-secular issues influence HRD research and practice.

Early planning phases for both of the 2000 AHRD Performance and Integrity pre-conferences focused on evolution, the next iteration of discussions, themes, and evaluations, which emerged from the 1999 pre-conferences. As the pre-conference chairs developed strategies for the 2000 conference, it became obvious that conceptually the groups were converging. Consequently, the Performance and Integrity pre-conferences were merged in 2000 and conducted as a Joint Session of the AHRD Pre-conference on Integrity & Performance in HRD.

The Three Perspectives

To fully appreciate the diversity of views about the purposes of HRD a brief sketch of three fundamental philosophical perspectives of HRD are presented. The purpose of these sketches is to give readers a richer context for understanding what drove the pre-conference session and the significance of its outcomes.

The Spirituality of Work Perspective. The concept of spirituality at work is multidimensional, transformational, and is expressed through one's ability to find meaning in everyday life and the capacity to create a meaningful world (Chalofsky, 2000; Neck & Milliman, 1994). Spirituality is a very personal thing concerned with making meaning of one's reality and finding significance in that meaning. It is a function of all life experience, including work, and has been described as "a reaffirmation of self [that is] characterized by a contextual awareness of oneself as one journeys inward to discover the self" (Chalofsky, 2000, p. 97). Spirituality emphasizes inner growth that is realized through the interaction of self, context, and life experiences. The growth can become transformational in that it empowers individuals to take an active and creative role in shaping the world in which they live and work.

This perspective emphasizes a holistic approach to the human development and the development of organizations that is reflected in two fundamental elements. First, it recognizes the need to develop the whole person (Dirkx, 1996). It is concerned not only with individual cognitive development but also emotional, moral, ethical, creative and relational development. It is focused on development that will enable individuals to realize their full potential in a meaningful way, and is concerned with issues surrounding meaning of work, how individuals experience work, and how they make meaning out of that experience. Dirkx and Deems (1996), for example, call for an ecological approach to work, one that "bridge[s] the gulf between the psychological and the organizational, to see the needs of the individual and the workplace as a continuum, to understand the 'inner life' as intimately and deeply connected to and embedded within an outer life" (p. 276). Because of HRD's expertise and compassion to address skills and quality of life issues, both of which are critical for organizational success, this perspective stresses that one of HRD's key functions is to help organizations move toward a more 'human' relationship with their personnel.

Second, the spirituality of work perspective sees work as having a transcendent element that goes beyond individual and organizational boundaries. This view is grounded in the notion of interconnectedness, a systems perspective that sees the world as a complex of parts braided together into a unified whole (Capra, 1996). The implication is that HRD values and goals should extend beyond issues of work objectives, tasks, structure, productivity, or performance to a concern for the health and humanness of our organizations, society, and the world as a whole (Hatcher, 2000; Hawley, 1993). For example, Rousseau & Arthur (1999) argue that organizations have a duty to contribute to both individual work expertise and quality of life. Hatcher & Brooks (2000) have noted a number of emerging economic, systems, and psychological theories that encourage us to "take responsibility for the world beyond our organization, and recognize that with each interaction we have and each action we take, we are co-constructing a new organization" (p. 9).

This perspective also finds expression in a developing discourse in the HRD literature surrounding issues of social responsibility (Hatcher, 1998; 2000) and sustainable human development (Bates, in press), although how the expression of these values can be managed in an organizational context is not yet resolved. Some suggest that, as architects of organizational performance systems and facilitators of human learning and development, HRD should embody these values and express them in organizations through a legitimate 'check and balance' role (McAndrew, 2000), or through development of strategies that reflect societal and ecosystem needs (Hatcher, 1998, 2000). Bates (in press) applies Burgoyne and Jackson's (1997) 'arena thesis' and characterizes HRD as a mediator mechanism where value and goal conflicts between work systems and the requirements of sustainable human development are clarified, negotiated and resolved.

The Learning Perspective. Underlying the learning perspective is the fundamental belief that enhancing learning should be a primary goal of HRD, and organizations that adopt such a focus will have a more satisfied and productive workforce and will be more effective. This perspective emphasizes change through learning and sees HRD as "the field of study and practice responsible for fostering long-term, work-related learning capacity at the individual, group and organizational levels in organizations" (Watkins, 1989, p. 427). HRD is thus primarily concerned with "increasing the learning capacity of individuals, groups, collectives and organizations through the development and application of learning-based interventions for purpose of optimizing human and organizational growth and effectiveness" (Chalofsky, 1992, p. 179). Two fundamental focal points of the learning perspective are adult learning theory and research and development addressing the concepts of the learning organizations and organizational learning.

Adult learning is represented by a complex of theories, models, ideas, and principles, perhaps the most popular of which is embodied in a set of six core adult learning principles that Knowles (1990) labeled andragogy. Although it is generally agreed that adult learning plays an important role in HRD, there is a continuum of beliefs about how adult learning should be conceptualized. On one hand, some advocate that the real value of adult learning lies in its ability to contribute to individual development (Dirkx, 1996). Individual development, in turn, is framed to include not simply the accumulation of knowledge or skills, but the development of cognitive schemes and ways of thinking that can enlighten and transform personal experience (Barrie & Pace, 1998). In fact, in one of Knowles's (1975) lesser-known works, Self-Directed Learning, he called for a definition of competency that included not only knowledge and skill, but also understanding, attitudes, and values. This view emphasizes the intrinsic value of learning over its instrumentality, does not limit adult learning in HRD to organizational contexts, and believes that the decisions about when and what learning occurs should reside primarily with individual learners (Hiemstra & Sisco, 1990). At the other extreme, there are those that posit that the worth of workplace adult learning can only be judged by the extent to which it contributes to the performance goals of the sponsoring organization (Swanson & Arnold, 1997). This view emphasizes organizational needs over those of the individual and believes that when individual and organizational needs are not wholly congruent, organizational needs take precedent. Van der Krogt (1998) discussed this tension as "learning systems as a tool for management" vs. "learning systems as a tool of personal development".

As implied in the Watkins and Chalofsky definitions cited above, there is also a need to move to a broader, more transformative definition of workplace learning that allows for learning to be a critical part of organizational culture (Watkins and Marsick, 1993). Senge (1990) defined a learning organization as an organization that is continuously expanding its capacity to create its future and change in response to new realities. Learning is the driver of this capability and HRD is responsible for "facilitating or monitoring all types of learning in the workplace including formal, informal, and incidental learning" (Watkins & Marsick, 1992, p. 118). Learning organizations are those that have woven a continuous and enhanced capacity to learn, adapt and change into their culture. Here values, policies, practices, systems and structures are oriented toward supporting and accelerating the learning of all employees. This learning results in continuous performance improvement in areas such as work processes, products and services, the structure and function of individual jobs, teamwork, and effective management practices. Learning organizations view learning holistically and seek to develop individuals as competent, well informed, critical thinking adult learners who are continuously seeking to grow and be high performing (Bierema, 1996). Holistic, transformative learning leads to personal growth (intellectually, psychologically, spirituality, and morally), which then leads to high performance, workplace meaning & satisfaction, and organizational effectiveness.

The Performance Perspective. Holton (in press; 2000) has defined performance as accomplishing units of mission-related outcomes or outputs. A performance system is any system organized to accomplish a mission or purpose. It is important to note that the term performance system is used instead of organization. Performance systems are simply purposeful systems that have a specified mission. All organizations are performance systems, but some performance systems are not an organization. For example, a community could become a performance system if it adopts a mission. Thus, the performance paradigm holds that the purpose of HRD is to advance the mission of the performance system, which sponsors the HRD efforts, by improving the capabilities of individuals working in the system and improving the systems in which they perform their work. Holton (2000) outlined eleven core theoretical assumptions of this perspective:

1. Performance systems must perform to survive and prosper, and individuals who work within them must perform if they wish to advance their careers and maintain employment or membership.
2. The ultimate purpose of HRD is to improve performance of the system in which it is embedded and which provides the resources to support it.
3. The primary outcome of HRD is not just learning, but also performance.
4. Human potential in organizations must be nurtured, respected and developed.
5. HRD must enhance current performance and build capacity for future performance effectiveness in order to create sustainable high performance.
6. HRD professionals have an ethical and moral obligation to insure that attaining organizational performance goals is not abusive to individual employees.
7. Training/learning activities cannot be separated from other parts of the performance system and are best bundled with other performance improvement interventions.
8. Effective performance and performance systems are rewarding to the individual and to the organization.
9. Whole systems performance improvement seeks to enhance the value of learning in an organization.
10. HRD must partner with functional departments to achieve performance goals.
11. The transfer of learning into job performance is of primary importance.

In addition, five myths about the performance perspective were identified:

1. Performance is behavioristic. The performance paradigm is not the same as behaviorism. The performance paradigm is most concerned that performance outcomes occur, but in no way should it be interpreted to restrict the strategies and interventions employed to behavioristic ones.
2. Performance is deterministic. Another mistaken belief is that the performance paradigm demands that outcomes of HRD interventions be pre-determined before the interventions. Performance advocates are just as comfortable as learning advocates with less certain outcomes, provided that outcomes do occur at some point.
3. Performance ignores individual learning and growth. The performance paradigm honors and promotes individual learning and growth just as much as a learning paradigm does. The key difference is that the performance paradigm expects that learning and growth will benefit the performance system in which it is embedded.
4. Performance is abusive to employees. There is little doubt that a performance approach to HRD can be abusive to employees, particularly when organizations use cost-cutting through downsizing as a substitute for sound performance improvement. However, this is a problem of implementation, not one that is inherent in the theoretical framework.
5. Performance is short-term focused. Once again, this is a problem of implementation, not theory. It is true that many organizations place too much emphasis on short-term results. However, most organizations have learned that focusing on short-term performance and not building capacity for long-term success does not work. There is nothing inherent in performance theory that says it must be short-term.

The performance perspective pushes HRD to grapple with two basic questions: Could HRD sponsored by a performance system survive if it did not result in improved performance for the system? Second, will it thrive if it does not contribute in a substantial way to the mission of the organization? Like all components of any system or organization, HRD must enhance the organization's effectiveness. The challenge is to consider how performance should be incorporated in HRD theory and practice, not if it should be.

The performance perspective maintains that HRD will only be perceived as having strategic value to the organization if it has the capability to connect the unique value of employee expertise with the strategic goals of the organization (Torraco & Swanson, 1995). Performance advocates see little chance that HRD will gain power and influence in organizations by ignoring the core performance outcomes that organizations wish to achieve. By being both human and performance advocates HRD stands to gain the most influence in the organizational system. If the field of HRD focuses only on learning or individuals, then it is likely to end up marginalized as a staff support group.

The Performance/Integrity Pre-conference

The goal of the pre-conference was to explore ways in which the apparent gaps between these seemingly disparate conceptual camps could be bridged. Early pre-conference planning discussions revealed that the debate over appropriate goals and philosophy of HRD had created false dichotomies and extreme and passionate views consistent with what may appear at first glance to be fundamentally different and mutually exclusive orientations. It became clear that entering into a dialogue aimed at exploring the similarities and differences between these perspectives would enhance understanding of the tension and hopefully provide insights that would help integrate the field of HRD. A fundamental assumption was that integration was desirable and that working within the inherent tension between these perspectives was a positive rather than a negative issue. The tension stimulated thought and constructive action and should be embraced rather than viewed as something that needed to be "fixed". With this in mind, the following pre-conference goals were articulated:

1. Clarify the nature of the three perspectives and the tension between them.
2. Investigate the implications of these perspectives for research and practice.
3. Explore the desirability and possibility of synthesis.

In the pre-conference session, groups crystallized around each of the three perspectives. The three groups were asked to "define" and/or describe their perspective as it related to the other perspectives and discuss how their perspective might be implemented within organizations. The "*learning*" group reported that learning in an organization is a paradigm shift that becomes the core value and can be viewed as a benefit. Learning is aligned with organizational culture, integrity of the individual, and with the ethics of the organization. Thus, the purpose of HRD is to create learning organizations conducive to integrity of the individual and ethics of the organization. The idea of learning/spirit must be conscience within the organization. To accomplish this we might develop conversational spaces that facilitates discourse on spirituality, learning, ethics, and integrity issues. These spaces might help executives see how the three perspectives are aligned and "buy-in" to the idea that all three are relevant and equally important within the organization.

The "*performance*" group said that a congruent relationship between spirit and performance results in pride in work, but there are problems with different "levels" of work requiring different pay levels. For example, how do you instill pride or meaning of work in a low pay, low prestige, or low value-added job? Thus, there is a relationship between the work done and meaning of work: the kind of work being done may create problems in linking spirituality/meaning of work and performance. To address this issue it may be possible to restructure work in ways that help the worker identify the inherent spirituality and meaning of the work. The group also the importance of an organizational culture that allows for all three perspectives, and described several challenges. The first was how to help management understand the value of the three perspectives and then how to get their support and assistance in creating or instilling them within the organization. Another related challenge was how the three perspectives are measured and how they might be linked to what is already important within an organization.

The performance group continually stressed the notion that performance can not be ignored in an organizational system. That is, every organization of every type has to perform, and measuring that performance is critical. For example, even churches routinely talk about performance metrics such as membership, persons assisted, money raised for certain ministries, and so on. They suggested that it would be unrealistic for HRD to not be concerned with performance. They also quickly acknowledged that performance can be misused in organizations and can become abusive to employees—but so can learning. Thus it is important to talk about the ethical use of performance, but not to discard the construct as part of HRD's purpose.

The "*spirituality*" group developed a "performance-learning-meaning" model placing these three elements within a helix-like structure. As the meaningfulness of work increases so does learning and performance, thus all three are interdependent and mutually supportive. Parker Palmer's ideas around expressive and instrumental work were discussed and it was noted that most work environments emphasize the latter over the former. This led to a discussion of the resistance to meaning in work within corporate environments, the "just tell me what to do" syndrome, and the extent to which HRD has a responsibility to the resistant worker to offer an alternative vision. That is, we have a moral obligation to act on our understanding of the value in finding meaning in work. Many people are conditioned by the systems in which they work so HRD must work on the system's understanding of the meaning in work.

As practitioners, we must educate and enlighten at the individual level – how it influences the individual and the contextual level – how to advance the idea of spirit at work. To do this we need to identify what work means to us and understand that we can't always act on our own value system; the "we shouldn't but can't afford not to work for this company anymore" dilemma. So, we need to find ways to protect ourselves and use spirituality at work as a means of self-discovery and enhancing self-worth.

Within training programs, if we subscribe to the ideas of human potential inherent in spirit and meaning what is the implication for our practice? How do HRD programs manifest these issues – how do we give people individual capacity to work on, to build on the tension between the three perspectives – and within our academic programs? As researchers, we need to do research in areas where this is working to identify how and what is going on. We must also ask how do we begin to talk about spirituality at work at all levels? Finally, do we have a moral obligation to do this and to move our organizations toward social responsibility?

After the three groups presented their thoughts an open discussion ensued with pertinent ideas documented on flip charts and summarized as follows: The three perspectives were illustrated with each of the three perspectives inside three interconnected circles; the area where the three intersect being where we should place our efforts. The idea that we must establish "common ground" meant that we needed to work to bring the perspectives together and begin to focus on their similarities and areas of convergence. Many participants expressed concerns that current purposes and definitions of HRD would be insufficient to support the convergence and that we should focus on the reformulation of the purpose and definition of HRD.

It was agreed that the redefinition or purpose statement process should start with ideas or themes around common ground between the three perspectives of performance, learning, and spirituality. Ideas or common themes included *work, learning, human potential, tension, balance, core values, process, product, sustainability, alignment, performance*, and *system*. There was much discussion around the meaning of and possible substitution of *human potential* for spirituality. It was agreed that human potential was more descriptive of the goals of HRD and less ambiguous than the idea of spirituality since it may be defined and conceptualized in many different ways in different cultures. Another important discussion was around the issue of whether or not HRD happens only within an organizational context, or whether or not it may apply outside the constraints of the organization. Asking the question "what would happen to the concept of HRD if it was removed from its organizational context?" facilitated this discussion.

A Statement of Purpose for HRD

As a result of these discussions a working purpose statement of HRD was formulated: *The purpose of HRD is to enhance learning, human potential and high performance in work-related systems.* We believe this purpose statement reflects the synergy of the performance, learning, and spirituality perspectives. Because the language used in the statement enjoys common use among HRD scholars and practitioners, the following description of terms is offered for clarification and as a starting point for dialogue about what this purpose statement does or should mean for the field of HRD.

Learning. In the context of our purposes statement, learning is defined as a relatively permanent change in work system capabilities. It can result from formal, planned learning experiences such as those that occur in training situations. It also includes structured and unstructured self-directed learning, as well as unplanned, spontaneous learning that occur when one learns from one's work (Watkins, 1998). Learning occurs at the individual level and involves the acquisition of verbal information, intellectual skills, motor skills, attitudes, and cognitive strategies that enhance the ability or potential of individuals (Gagne & Medsker, 1996). Learning is also applied to larger work systems (groups, organizations, and other goal-oriented collectives) through the concept of a learning organization (Senge, 1990). Learning is therefore an essential part of developing high performance work-related systems and enhancing learning must be an integral part of a contemporary purpose/definition of HRD.

Human potential. Human potential is defined as the latent capabilities in humans for growth and development. Building human potential is critical for HRD because of the implications it has for the ongoing adaptation, change, and the well being of individuals and work systems (Bates, in press). The term human potential is used instead of spirituality because the latter is viewed as a relatively ambiguous term subject to divergent views and definitions that would detract from its functional meaning and consistent interpretation within HRD, especially within diverse work cultures.

Performance. Performance is defined as the outcomes or achievements that result from goal-directed work system behavior. High performing work systems are those that optimize the fit between system elements (people, processes, information, technology, or sub-systems) in ways that enable the work system to meet or exceed its performance goals (Nadler & Gerstein, 1992). The use of the term *high performance* includes recognition of the social responsibility of HRD within private and public environments.

Work-related Systems. A work-related system is defined as an interdependent, organized architecture of human activity directed toward the accomplishment of a valued goal or outcome (Bates, in press). The structure, complexity, and goals of work systems distinguish them from organized human activities directed at play or recreation. The choice of the term *work-related systems* versus organizations, companies, or related terms we believed explicitly recognizes the wide range of contexts in which HRD operates. This notion conceives work systems to include individuals themselves, organized work teams, and formal for-profit and public service work organizations. It comprises informal organizations, such as community-based organizations, composed of a varying number of individuals without a formal organizational structure that act interdependently to accomplish often vaguely defined goals. The concept also extends to collections of interdependent work-related sub-systems, such as those reflected in regional or national workforce development systems, educational systems, health or social service systems. These larger work systems reflect organized networks of smaller work systems that are fit together in ways that allow the larger system to respond to a broader range of customer demands and environmental threats or opportunities (Bates, in press).

Defining work-related systems as HRD's domain of activity makes several fundamental assumptions. First, it assumes that work-related systems are created to enhance the human condition. Second, it assumes that work systems are entities that do not exist independently from the people that comprise them. Rather, work systems are composed of people and processes, often multiple collectives with complex systems of social relationships, which have a shared set of symbols (e.g., language) and experience. Finally, the fact that work-related systems are composed of people makes them the appropriate focal point for HRD activity.

Implications for the Field of HRD

The results of this pre-conference revealed that the three perspectives evident in HRD today are not so distant as they appear and that there was much to learn from the integration of these concepts. Although the relationship between these three perspectives has often been contentious, we discovered that this diversity of views is a source of strength for HRD and that there is a good deal of fundamental convergence between the perspectives. Result of the pre-conference made it clear that a new way of looking at HRD, a new worldview or paradigm was needed to help the field and it's professionals add real value to people, organizations, and societies in the future. It also highlighted the interconnectedness of the three approaches.

It seems reasonable to assume that diversity of viewpoints or worldviews that the HRD profession continually promotes must also be reflected in our purpose and/or definition statements. To the extent that the purpose statement offered here reflects this diversity it is incumbent upon the profession, and in particular its researchers and scholars to examine this purpose, to apply it, and validate it thoroughly before it is institutionalized and eventually canonized. Additionally, to meet the needs of such a diverse and eclectic group as those involved in the HRD profession the implications of what this small group of scholars attempted to accomplish and what they developed as a result of the 2000 AHRD pre-conference should be further investigated and the dialogue possibly continued. It is our hope that, at a minimum, this new statement of purpose pushes HRD to look beyond its instrumentality and offers us a start to create unity amongst us while providing more meaningful and holistic parameters within which we can and should positively shape and inspire the systems in which we work.

Participants

Participants in the 2000 Performance-Integrity Preconference included Steven Aragon, Reid Bates, Neal Chalofsky, Jason Yu-Shu Chen, John M. Dirkx, Tim Hatcher, Ed Holton, Herb Huber, Olga Kritskaya, David Machles, Shirine Mafi, Wim Nijhof, Hallie Preskill, Wendy Ruona, Steve Semler, Nadine Simon, Lisa Stevens, Rich Torraco, Alex Verret, and Margot Weinstein.

When asked to share lessons learned from the pre-conference, participants indicated that they had not previously realized the value of the convergence of the three perspectives and how we had, as a field of practice and research, continued either consciously or subconsciously supporting divergence. There was also consensus that a new "paradigm" or way of viewing HRD should be developed using the purpose statement created in the pre-conference as a starting point. Many participants said that they had a better appreciation of the philosophical and pragmatic expansiveness of the field and its true potential to positively change people and work-related environments, "not just help companies make more money".

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Codes of Ethics and Enforcement of Ethical Conduct: A Review of Other Organizations and Implications for AHRD

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The development of an ethics code is considered an essential step in turning an "occupation" into a "profession". Typical definitions of "profession" include member commitment to ethical conduct. The Academy of Human Resource Development has taken the posture that for an individual to function effectively in a professional role there must be ethical guidelines. Four organizations were reviewed to determine historical foundations and monitoring mechanisms for implementation of ethics codes. Aspirational versus punitive applications for AHRD are discussed.

Keywords: AHRD Standards, Codes of Ethics, Ethics Committees, Professions

History of AHRD Work on Ethics and Integrity

Beginning in 1996, the Academy of Human Resource Development (AHRD), began considering the issue of ethics and integrity (Jacobs, 1996; Marsick, 1996, 1997). As various conference sessions and discussions continued, the AHRD Board along with more and more members became convinced that the Academy should develop a code on ethics and integrity, particularly given the mission of "leading the Human Resource Development Profession through research." Beginning in the spring of 1998, a taskforce was formed to develop such a code. The taskforce included Janet Z. Burns (Georgia State University), Peter J. Dean (University of Tennessee and The Wharton School of the University of Pennsylvania), Tim Hatcher (University of Louisville), Fred Otte (retired, Georgia State University), and Hallie Preskill (University of New Mexico), with Darlene Russ-Eft (AchieveGlobal, Inc) as committee chair. After initial development and review, a final document was prepared and approved by the Board in November 2000, and the Standards on Ethics and Integrity were published by AHRD (1999). At the same time, the Board decided to designate the members of the group as the AHRD Committee on Ethics and Integrity.

Abstract ethical statements, such as the AHRD Standards, provide an undefined amount of guidance to researchers and practitioners. Therefore, recognizing the need for further clarify, the Committee embarked on the development of a set of case studies. At the 2000 Academy conference, the Committee sponsored an innovative session to describe the development of case studies and to solicit contributions from the membership (Burns, Hatcher, & Russ-Eft, 2000). Further details on the history of the AHRD work on ethics and integrity can be found in Hatcher and Aragon (2000) and Russ-Eft (2000).

The work on ethics and integrity is a major step in the development of HRD as a profession. The Standards on Ethics and Integrity represent the collective wisdom of AHRD at this point in time. In order to continue in the growth process, thoughtful consideration and input by the membership is necessary. Recently the membership of AHRD has begun to question if an aspirational ethics document takes the profession far enough. Aspirational ethical principles simply provide guidance to professionals for resolving dilemmas and conflicts. In contrast, an enforceable code implies sanctions for specific acts based on formal judgements. Therefore, several research questions have emerged.

Research Questions

1. What are the experiences of similar organizations with regard to aspirational versus punitive codes of ethics?

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2. If AHRD wants to pursue professionalism, does this require a punitive code with some enforcement?
3. What are the responsibilities if enforcement is undertaken?

Theoretical Framework

In attempting to answer the research questions, it is imperative to define the construct of "profession." Wilensky (1964) suggested that the development of professions proceed according to five stages. These five stages are as follows: (1) people begin to work in that field on a full-time basis; (2) programs develop to train people in the skills needed for that field; (3) professional associations begin to develop; (4) concerns begin to arise regarding licensure; and (5) codes of ethics begin to appear.

When entering into discussions about ethical codes, theorists have offered alternative models of ethical decision making. Teleological theory is a consequentialist theory. Opposed to teleological theory is deontological theory or a nonconsequentialist view of ethics (Hatcher, 1999). Simply stated, teleological theory focuses on the results of an act while deontological theory focuses on the act itself. Deontology espouses that the rightness of an action takes precedence over and can be judged independently of the consequences of the actions, or the results are not as important as the nature of the act in question. In regards to how one views ethical behavior, we suggest that those who subscribe to teleological theory would be tend to subscribe to codes that are more punitive in nature while those subscribing to deontological theory may subscribe to aspirational codes.

We will use the Wilensky stages and the teleological/deontological distinction in ethical theory to discuss three professions and one organization comprised of various professions. The research questions will be addressed by examining the experiences within four organizations: the American Evaluation Association, the American Psychological Association, public school teaching, and the Internal Revenue Service.

The Experience of the American Evaluation Association

The American Evaluation Association (AEA) is an organization of academicians, researchers and practitioners bearing some similarities to AHRD. The following paragraphs will compare the two organizations.

As for stage 1, certain members of AEA work in the evaluation field full-time. These evaluators tend to work in government agencies and in non-profit or for-profit organizations. Similarly, certain members of AHRD work in the HRD field full-time. In terms of stage 2, Altschuld, Engle, Cullen Kim, and Macce (1994) reported that about 20 training programs have substantial numbers of evaluation courses. Since its inception, AHRD has made granted the Outstanding Academic Program award to four different universities. As for stage 3, that of the development of professional organizations, AEA has existed for over 10 years. The predecessor organizations (Evaluation Research Society and Evaluation Network) began about 10 years prior to AEA. In contrast, AHRD began more recently than did AEA, but its predecessor organizations (Professors' Network and the Research Committee of the American Society for Training & Development) existed for many years prior to the birth of AHRD. Regarding stage 4, the AEA Board first commissioned a review of the possibilities for accreditation of instructional programs in evaluation (Trochim & Riggins, 1996) and later commissioned a taskforce to review the potential of certifying evaluators (Altschuld, 1999). More recently, the AHRD Board has considered the possibilities for certification of HRD professionals (Altschuld, 1999).

Finally, as for stage 5, evaluators have developed several ethical codes over the years. In 1982 the Evaluation Research Society (ERS) adopted standards for program evaluation. The standards were never published or formally adopted before the organization's merger with by AEA. AEA merged with ERs to form AEA. The Joint Committee on Standards for Educational Evaluation published the Standards for Evaluations of Educational Programs, Projects, and Materials, and more recently The Program Evaluation Standards (Joint Committee, 1994). Then, AEA itself adopted and published the Guiding Principles for Evaluators (AEA, 1995). Similarly, AHRD has begun to develop work on an ethics code, with the publication of the Standards on ethics and integrity (1999).

The contents of these two ethical codes are very different. The Program Evaluation Standards (Joint Committee, 1994) are very detailed and begin with an Introduction and a section on Applying the Standards. The Standards include Utility Standards (Stakeholder identification, Evaluator credibility, Information scope and selection, Values identification, Report clarity, Report timeliness and dissemination, and Evaluation impact), Feasibility Standards (Practical procedures, Political viability, and Cost effectiveness), Propriety Standards (Service orientation, Formal agreements, Rights of human subjects, Human interactions, Complete and fair assessment, Disclosure of findings, Conflict of interest, and Fiscal responsibility), and Accuracy Standards (Program documentation, Context analysis, Described purposes and procedures, Defensible information sources, Valid information, Reliable information, Systematic information, Analysis of quantitative information, Analysis of qualitative information, Justified conclusions, Impartial reporting, and Metaevaluation). In contrast, the Guiding Principles for Evaluators are less detailed and focus on five principles: (1) Systematic inquiry, (2) Competence, (3) Integrity/honesty, (4) Respect for people, and (5) Responsibilities for general and public welfare.

Given the similarities in history between AEA and AHRD, we can now turn to the question of the use of the ethical code for the purposes of reviewing reported cases of "unethical" practices. Altschuld et al (1999) pointed out that the guidelines might not yet be fully integrated into the daily practice of evaluators. Thus, the current status in evaluation is that ethical codes do exist. In fact, several somewhat overlapping ethical codes exist in evaluation. These ethical codes have been incorporated to some greater or lesser extent into the research and practice of evaluators. Furthermore, AEA maintains an ongoing Ethics Committee. The purpose of this committee is to undertake periodic review and revision of the Guiding Principles and to provide input into work undertaken by the Joint Committee on Standards for Educational Evaluation. Nevertheless, the Ethics Committee does not review reported violations of the codes, and no procedures currently exist for dealing with such violations. The AEA ethical code, therefore, can be characterized as aspirational rather than punitive.

The Experience of the American Psychological Association

The American Psychological Association (APA) is the major professional psychological organization in the United States. It is made up of members who are teachers, researchers, diagnosticians, measurement experts, curriculum designers, therapists, consultants, expert witnesses, and consultants to management. These roles continue to expand in number and function since APA's founding in 1892 and incorporation in 1925. In applying Wilensky's model of the growth of a profession, stage one fits with APA. As with AEA and AHRD, many psychologists are in the practice of psychology on both a full and part time basis. In terms of stage 2, APA accredits Doctoral, Internship, and Postdoctoral training programs in professional psychology and maintains a Committee on Accreditation. A list is updated annually, and is available from the APA Office of Program Consultation and Accreditation. The American Psychological Association has a rich history that covers Wilensky's stages 4 and 5. The APA established an ethics committee in 1938, but did not adopt a formal ethics code until 1953. Today, APA has a comprehensive "ethics program" in which the ethics committee is one component. To develop their first code, the APA solicited input from the membership and received and used more than one thousand cases as a database. The code is not static. Over the years, the code has undergone a number of minor as well as major revisions. Revised documents were published in 1958, 1963, 1968, 1977, 1979, 1981 and 1992.

Currently, the 1992 APA (American Psychological Association Ethics Committee, 1992) code remains in place. However, according to the Report of the Ethics Committee, 1999 "significant action was taken toward the revision of the Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association Ethics Committee, p. 938). An Ethics Code Task Force of APA plans to hold two to three meetings per year until the code is revised. The task force has projected the completion year of 2002. The task force has written two drafts and both drafts were provided to the Council of Representatives, the Board of Directors, and APA boards and committees. The membership was provided information highlighting changes in the *APA Monitor* and commentary was sought. The task force held a discussion session with audience comments at the 1999 APA convention in Boston. Information gathering is a significant component of the Ethics Committee's plan for revision of the Ethics Code. Concurrently, in 1999 APA addressed a proposed revision of the Ethics Committee's "Rules and Procedures" (American Psychological Association Ethics Committee, 1996). This revision was delayed pending further study of the ethics program (American Psychological Association Ethics Committee, 2000).

The current Ethical Principles of Psychologists and Code of Conduct is comprehensive and consists of an introduction, preamble, and six annotated principles and eight general standards. The principles fall under the following headings: Competence, Integrity, Professional and Scientific Responsibility, Respect of People's Rights and Dignity, Concern for Others' Welfare and Social Responsibility. The standards are: General Standards, Evaluation Assessment or Intervention, Advertising and Other Public Statements, Therapy, Privacy and Confidentiality, Descriptions of Education and Training Programs, Forensic Activities and Resolving Ethical Issues. The Preamble and General Principles are not themselves enforceable rules. The Ethical Standards are enforceable rules for the conduct of psychologists. Membership in the APA commits members to adhere to the APA Ethics Code and to the rules and procedures used to implement it.

As Wilensky mentions in stage 4 of the model, licensure is a considered component of a profession. Currently a license is required for many areas of practicing psychology. State licensing boards establish and monitor the entry-level qualifications required to offer services to the public. State licensing boards may also monitor the conduct of the psychologists whom they have licensed. A state licensure board can inform APA that an action has been taken or charges are pending against one its members. In the profession of psychology, where all psychologists are not required to be licensed, the APA ethics committee can monitor these groups who are not required to be licensed but who are members of APA through their peer monitoring system. The APA code consists of an aspirational section, which consists of general ethical principles, and the standards, which are more specific and enforceable by the organization. APA can and does revoke membership, but is not sanctioned to revoke a *psychologist's license. License revocation is the responsibility of the licensing board in each individual state.*

Public School Teaching Grades K-12 as a Profession

Public school teaching in the United States is another profession following the professional development model suggested by Wilensky. As with the other professions discussed thus far, teachers for the most part work in full time positions, as indicated in Stage 1 of the model. Stage 2 of the model also fits, as programs to train teachers reside in colleges and universities, and generally lead to different levels of degrees from the Bachelor level up to a Doctorate. Many teacher education programs are accredited by organizations that implement national standards, such as National Council for Accreditation of Teacher Education (NCATE). Additionally, many teacher education programs must be approved by a state accrediting organization. For example, in Georgia, the program approval agency is the Georgia Professional Standards Commission (PSC). Accompanying the standards for teacher education program accreditation, the majority of states now require some kind of minimum competency test for beginning teachers in order to obtain a teaching license/certificate. The focus of these tests varies from state to state. For example, in Georgia, teachers are tested for basic competency by the PRAXIS I examination. Prospective teachers must also pass a PRAXIS II content area test. There is currently a push for national teacher certification, as each state's department of education has unique requirements for certification in that particular state and it can be difficult for teachers to move from state to state. Some states share a regional credential such as Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont (Kellough, 1999).

Stage 3 of Wilensky's model is relevant to the profession of teaching. There are numerous professional organizations available for teachers. Local teachers' organizations are usually discipline-specific, such as for mathematics (National Council of Teachers of Mathematics), science (National Science Teachers Association) or vocational (Association for Career and Technical Education). In most states, there is a statewide organization, typically affiliated with a national organization. For example, in the area of vocational teaching in Georgia, teachers can become members of the national organization, Association for Career and Technical Education (ACTE) and GACTE. In addition, there are the National Education Association (NEA) and the American Federation of Teachers (AFT), which, in a few locales, have merged as the collective bargaining organization for teachers. In addition, there are many other professional organizations such as Phi Delta Kappa and the Association for Supervision and Curriculum Development. Kellough (1997) lists 56 periodicals from professional organizations for teachers.

Stage 4 of Wilensky's model applies to the teaching profession. In fact, teaching may be unique from the other professions mentioned thus far in that certification/licensure is mandatory in order to obtain a teaching position in a public school.

Let's look at stage 5 of Wilensky's model, and examine codes of ethics in the teaching profession. After examination of 6 teacher education textbooks, (Armstrong & Savage, 1994; Jacobsen, Eggen & Kauchak, 1999; Kellough, 1997; Moore, 2001, Moore, 1999; Sparks-Langer, Pasch, Starki, Moody, & Gardner, 2000) it is interesting to note that little mention is made of ethics or a code of ethics. Professional behavior is addressed in some of the textbooks in regard to joining a professional organization, or taking staff development courses to update skills. No codes of ethics appeared in the textbooks examined. Since each state has a licensing agency, it appears that each state would have to be contacted to obtain a code of ethics for that particular state, assuming that each state has one.

The authors selected the state of Georgia for closer examination. The agency responsible for teacher certification in Georgia is the Georgia Professional Standards Commission (PSC). Within the PSC resides the Professional Practices Section (PPS) that is responsible for examining criminal or unethical behavior. The PPS is authorized by the 1998 Georgia Senate Bill 535 (Georgia Professional Standards Commission, 1999) to investigate reports of criminal conduct, violations of professional or ethical codes of conduct and violations of certain rules, regulations and policies by school system educators. The PPS also enforces the requirement that local school systems promptly report criminal conduct and have the authority to impose disciplinary action or a denial of a certificate against an educator. Additionally, the law charges the PSC with adopting standards of performance and a code of ethics for educators.

The Georgia Professional Practices Commission (1994) ethics document for educators includes a preamble, introduction, supplemental definitions and the code of ethics. The code of ethics is comprised of canons, ethical considerations and 13 standards of conduct. Canons are the aspirations of the profession, and the ethical considerations are not a binding code of conduct. The standards of conduct establish mandatory prohibitions and requirements and are binding to educators in the state of Georgia. If the standards of conduct are violated, the educator may be investigated by the PPS and also by the local board of education. The PPS has the power to enforce the standards of conduct and can discipline an educator and revoke a teaching certificate. A shorter version of the code is distributed to teachers in a brochure. The brochure does not include the canons and the ethical considerations. However, the brochure (Georgia Professional Standard Commission, no date) includes sections entitled "Reporting" and "Disciplinary Action."

The Experience of the Internal Revenue Service

Generally one would not think of making a direct comparison between a professional organization such as AHRD and a large Federal agency like the Internal Revenue Service (IRS). With a second look, however, the similarity and the need for ethical standards appears. The Academy, through work done by scholars and practitioners, is dedicated to leading the development of the human resource development profession through research. Employees of the IRS have the following mission, "Provide America's taxpayers top quality service by helping them understand and meet their tax responsibilities and by applying the tax law with integrity and fairness to all."

To continue the comparison of the AHRD and the IRS, stage 1 of Wilensky's (1964) model for the growth of a profession shows similarity. Of the four organizations examined in this paper the IRS is by far the oldest. Government service employees regularly spend their entire 30-year careers in the Service.

Wilensky's stage 2 refers to how an organization develops training programs specific to the organizations needs. The IRS has developed an adaptation of the Instructional Systems Design (ISD) model for training design and development. This model, the Training Development Quality Assurance System (TDQAS) (Wright, 1995) has been used successfully as a guide for training program design, development and delivery. Approximately 80-million dollars is dedicated each year to training IRS employees. These funds support all forms of HRD initiatives in the areas of organization development, career development, and training and development.

Wilensky's stage 3 refers to the fact that in professional organizations professional associations begin to develop. The Service, in recognizing the importance of professional associations, supports its employees in their individual efforts to align themselves with the professional organizations important to their area of expertise. The IRS has a number of HRD professionals and many belong to the American Society for Training and Development.

Stage 4 of Wilensky's model addresses concerns that begin to arise regarding licensure. As has been mentioned previously, there are numerous occupations within the Service that require licensure (law enforcement, accounting, etc.). Human Resource Development or Training and Development, as it is more commonly referred, currently do not have any form of licensure or certification.

While the IRS has had little more interest than maintaining status quo as a stage 4 imperative, the opposite appears to be the case for Wilensky's stage 5. In 1989, the House Subcommittee on Commerce, Consumer, and Monetary Affairs challenged the ethical values of the IRS. As a result of the hearings the Commissioner instituted a Service wide ethics-training program. A nationally known ethicist, Michael Josephson (Government Ethics Center: Josephson Institute of Ethics, 1991) produced a one-day, video based ethics workshop that was facilitated by IRS instructors. The workshop presented the following 10 ethical values that have since become the framework for the IRS ethics process:

Honesty
Integrity
Promise Keeping
Loyalty
Fairness
Caring and Concern for Others
Respect for Others
Civic Duty
Pursuit of Excellence
Personal Responsibility/Accountability

Josephson helped develop five principles of public service ethics: Public Interest, Objective Judgement, Accountability, Democratic Leadership, and Respectability.

Since these initial efforts in the ethics arena, the IRS has continued to promote ethics and integrity as key components of the business of tax administration. In 1993, an employee survey-feedback initiative contained questions about ethics; and in 1994, all executives held forums with employees to discuss ethical issues. IRS organizations created ethics coordinator positions. A manual was developed that gave course developers instructions on how to weave ethical scenarios into all technical training material. A standard ethical values page is a part of the front matter of all training material. A vender has been contracted to produce additional ethics training materials for the Service. In addition to all of this, ethics training has moved into the electronic delivery mode through distributed education using the IRS Intranet. Additionally, the IRS's Office of Government Ethics (OGE) has developed an Ethics Home Page.

For those who may take lightly the IRS's emphasis on ethics, there are punitive measures in place. Section 1203 of the IRS Restructuring and Reform Act of 1998 contains provisions for the termination of employment for misconduct. Policies for reporting possible ethical violations are well established and range from contacting local ethics officials to contacting the Treasurery Inspector General.

Enforcement of Ethical Conduct - Comparisons of Applications of Ethics Codes

At least two mechanisms are in place to protect the public from unlawful, incompetent and unethical actions in the market place. First, there is control through general criminal and civil law that is applicable to all citizens. Second, there are profession specific legal controls that emerge from state licensing boards and federal regulations. The licensing boards establish entry standards for a profession, define practice, delineate offenses and sanctions, and serve as a means of enforcement under criminal law. However, as a profession develops and reaches Stage 5 of Wilensky's model, codes of ethics begin to appear. In fact, in many professions, control is exerted by peers, through an ethics code and ethics committees serving as a peer control mechanism. Stage 5 appears to be an important growth step for a profession as it is the recognition that there are some unethical acts that are neither illegal nor in violation of any policy except the ethics code. Generally, ethical professional standards expect behavior that is more correct or more stringent than is required by law. In such cases, ethics committees may be the only source of redress. In many instances conduct that is not in violation of any criminal or civil law would be defined as unethical according to the profession's code. For example, lecturing from outdated notes, administering assessments without adequate training, failure to give adequate or timely feedback to supervisees are only a few of the hundreds of possible examples illustrating acts that are not illegal, but which the HRD profession considers unethical.

In reviewing the various professions and organizations it was found that different professions and organizations approach enforcement of ethical codes in very different ways. In the case of AEA and AHRD, no procedures are in place for reporting and dealing with ethical violations. These associations appear to take a deontological or aspirational approach to ethics. In contrast, APA, the Georgia PPS, and the IRS have defined procedures in place. Thus, these organizations seem to use a teleological or punitive approach.

Although APA, the Georgia PPS, and the IRS use a teleological or punitive approach to ethical violations, there are differences in how these three organizations undertake investigations and apply sanctions. The APA operates as an association primarily comprised of volunteers, as is true of AHRD. It established an ethics committee in the late 1930's although the first ethics code did not appear until 1953. Today the APA ethics committee consists of eight voting members, six non-voting associates and a liaison from the APA Board of Directors. Members of the Ethics Committee are elected by the membership. The Ethics Committee develops a list of prospective members. The Board of Directors may supplement the list. The ballot is submitted to the Council of Representatives. Terms are for three years, with the committee electing a chair and a vice chair each year. The committee appoints committee associates for two year terms. The public member is elected by the Council of Representatives after being nominated by the committee and approved by the Board of Directors. The APA Ethics Committee has clearly delineated Rules and Procedures for processing complaints, the main activity of the Ethics Committee (Report of Ethics Committee, 1999, p. 939). The lengthy document contains five parts: Objective and Authority of the Committee, General Operating Rules, Membership, Show Cause Procedures Based Upon Actions by Other Recognized Tribunals, and Complaints Alleging Violation of the Ethics Code. The Ethics Program has the authority to expel members from APA.

In contrast, in Georgia, state law sanctions the PPS. The PPS has a five-step process to handle unethical behavior by an educator. If a case is referred to the PPS, it will determine if an investigation is warranted. If so, an investigator prepares an investigative summery for review by the commission. Then the Commission reviews the investigative report it determines probable cause to take any disciplinary action against the educator's certificate. If action need to be taken, an educator disciplinary hearing is held through the Office of State Administrative Hearings (OSAH). Each case is heard before an Administrative Law Judge. Notice of the decision is sent to the educator and the Commission. Either party has 30 days to request a review of the Administrative Law Judge's initial decision. The Commission makes the final decision. Since this is a multi-step process, there are several places in the process where the case can be closed. Disciplinary actions vary, with the most stringent being revocation of any certificate, license or permit held by the educator. An educator whose certificate has been revoked may petition the Commission for the right to reapply for certification after a three-year period (Georgia Professional Standards Commission, 1999).

Finally, the IRS differs from the other organizations in that it is not a professional organization per se but is a federal agency, comprised of several different professions. Therefore, in this context, federal law provides sanctions for violations of ethical behavior.

Expanding the Collective Wisdom of AHRD

AHRD has entered into Stage 5 of Wilensky's model. The Standards on Ethics and Integrity are similar to other professional ethic codes, specifically those of AEA and APA. Despite the variations in length and specificity, most professional ethic codes have similarities such as maintaining competence, protecting confidentiality and or privacy, acting responsibly, avoiding exploitation, promoting the welfare of consumers served and upholding the integrity of the professions through exemplary conduct. Such codes represent efforts to record some of the more definable rules of conduct. The codes signify the voluntary assumption of the obligation of self-discipline above and beyond the requirement of law. Codes are aspirational in that respect. Codes are educational in that they provide members of the profession with guidelines for the kind of the ethical behavior, according to the historic experience of the group, that is most likely to occur. A code can also serve to narrow the area in which a professional has to struggle with uncertainty. The AHRD document seems to do all the above.

In examining various organizations, it has been shown that there are alternative approaches taken with enforcement of ethics documents. The approaches range from completely aspirational, such as AHRD and AEA, to a combination of aspirational and punitive, as characterized by APA and the PPS in which enforcement occurs through banishment from the organization (APA) or banishment from a profession such as teaching (PPS). As part of a continuing effort to ensure that decisions about the use and revision of the Ethics Code remains an open and collaborative process, the AHRD Ethics committee's next step is to open conversations with the membership at the 2001 conference in Tulsa, Oklahoma regarding aspirational goals versus punitive sanctions. The conversation could lead the AHRD ethics committee to further research in ethics management and enforcement.

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The Role of Codes of Ethics in the Future of Human Resource Development

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The creation of the AHRD Standards on Ethics and Integrity was an important milestone for HRD. This paper explores how these Standards fit with the evolution of this emerging profession and with philosophical activity in it; discusses the critical role that professional associations play in developing the ethics of its members; and suggests specific steps AHRD may consider to facilitate the use of the Standards on Ethics and Integrity.

Keywords: Ethics, Professionalization, Socialization

The Biographer Richard Holmes once referred to one of his subjects as "a powerful personality without a solid identity." The same could easily be said of Human Resource Development (HRD). It is a field of practice comprised of thousands of contributors from diverse disciplines such as education, psychology, sociology, and business. It is a field where its professionals practice in multifarious contexts, among diverse clientele, and for varied ends. It is a field that celebrates its diversity and interdisciplinary nature—and it should because this diversity is a strength that facilitates reflection-in-practice that Schon(1987) and Argryis (1993) ascribe to greater decisional accuracy, creativity, and learning.

Yet at the same time, HRD is faced with mounting challenges to more strongly distinguish and legitimize itself. And it is the field's diversity that makes defining agreed-upon foundations, values, and beliefs difficult. In 1999 The Academy of Human Resource Development, after three years of actively involving its members in deeply exploring various aspects of ethics in HRD, took an important step in helping HRD legitimize itself and its professionals by introducing their *Standards on Ethics and Integrity* (AHRD, 1999). In recognition of the manifold roots of HRD, the AHRD *Standards* outlines a common set of values and principles upon which HRD professionals can build their work. They provide guidance and standards of conduct for HRD professionals.

Now, as the field continues to multiply and undergo fervent growth, the question of enforcement of these standards will be increasingly considered. To respond to this next phase challenge, this paper 1) relates the recently published *Standards* to the processes by which fields of practice become professionalized; 2) explores the role of ethics in the development of HRD; 3) discusses the critical role that professional associations play in developing the ethics of its members; and 4) suggests specific steps AHRD may consider to facilitate the use of the *Standards on Ethics and Integrity*.

HRD as a Profession

Sociologists have long studied professions, professionalism, and professionalization. While defining "profession" is still a challenge, there are three prominent approaches to theorizing about professions and professionalization. The first is the *process approach* which posists that professions travel a path toward full professional status, starting at different points, progressing through distinct phases, and traveling at different speeds. The assumption here is that all occupations will or can become professionalized. The second is the *trait approach*, which hypothesizes that professions share traits or characteristics in common, and that occupations reach professional status when they achieve specific characteristics. Lastly, the *power approach* differentiates (and critiques) professions based on the power relationships held by practitioners in their social exchanges with society and individual clients.

The trait or characteristics approach has been the most commonly referenced in literature about applied fields of practice. There are dozens of characteristics cited in this literature. Table 1 offers a synthesis of four noted authors' lists—including only characteristics that were cited by at least two of the four author(s), and omitting characteristics that were identified in only one author(s)' list.

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Table 1. Synthesis of Characteristics of a Profession

Characteristic	Cutlip, Center and Broom (1985)	Swanson (1982)	Pace, Smith and Mills (1991)	Gellermann, Frankel and Landenson (1990)
Provides a unique and essential service that is recognized as such by the community	✓		✓	
Develops organized and specialized body of knowledge, based on a theory and research	✓	✓	✓	✓
Defined area of competence		✓	✓	
Articulated and shared values	✓	✓	✓	✓
Standards of Ethics and Practice (values are interpreted and enforced)	✓	✓		✓
Monitors the practice and its practitioners		✓		✓
Educates and trains professionals	✓		✓	✓

These characteristics are starting places by which to define a profession, and are also part of a "dynamic process involving a high degree of interaction among the elements within the profession's boundaries and between the profession and its environment" (Gellermann et al., 1990, p. 16).

HRD and Professionalization

Strict interpretation of the above criteria may preclude calling HRD, as well as many other fields, a "profession". Many HRD practitioners, on the other hand, certainly qualify as "professionals" on most or all of the criteria listed above. There is little guidance as to when a field of study actually qualifies as a profession. This is complicated by the proliferation of new fields of study that have arisen in the 19th and 20th centuries and the emerging reorientation of the term "profession" in the sociological literature. Lipartito and Miranti (1998), for instance, propose to define professionals as purveyors and creators of expertise rather than stressing the classic characteristics models. This hints at a new trend in the professionalization literature—one that focuses on expertise and expert groups within organizational contexts.

A further complication for our purposes here is that HRD is considered to be comprised of three strands that some see as processes and others see as discrete fields of study. They are (a) Training and Development (T & D), (b) Organization Development (OD), and (c) Career Development (CD) (McLagan, 1989). Each of these communities are themselves taking steps towards professionalization. For instance, Gellermann et al. (1990) reports the results of an extensive study of values and ethics in OD.

However, it is undoubtedly true that HRD is considering the issue of professionalization. The topic was highlighted during a 1998 AHRD symposium (Chalofsky, 1998; Ellinger, 1998; Mott, 1998; Rowden, 1998) where various aspects of the issue were explored. More over, marked progress (summarized in Table 2) can be seen in each of the characteristics identified above.

Given this list, it seems appropriate to acknowledge the critical role that the *Standards* play in helping HRD to develop necessary foundations for professionalization, and to call HRD an emerging profession.

Ethics and Professional Ethics

As HRD has developed characteristics of a profession and has begun to examine its distinctive values, competencies, and practices, it must also begun to more fully understand what the *Standards* represent and to look at how members *enact* what they profess. Ethics is the critical examination of this conduct. It is concerned with action, in the sense that action is the result of choice, undertaken in light of desirability. There are two primary components of ethics (Honderich, 1995). First, is *morality* which speaks to issues of what is good (right and wrong) and what ought to be done. Second, is *axiological ethics* which is concerned with values. This component doesn't focus directly on what should be done, but rather on what is worth pursuing or promoting and what should be avoided.

Ethics are principles derived from philosophical activity. Philosophy has traditionally been concerned with three basic (and big) issues: being (ontology), knowing (epistemology), and acting (ethics). If one thinks about these foci as separate areas of inquiry, then philosophy does not seem to serve much purpose. However, in actuality, these

Table 2. An Overview of HRD's Progress Towards Professionalization.

Characteristic	HRD's progress
Provides a unique and essential service that is recognized as such by the community	• There has been no attempt to evaluate this directly, however a 1999 State of The Industry Report (Bassi and Van Buren, 1999) completed by ASTD indicates that in the years between their 1997 and 1998 surveys there was a marked increase in, among other things, the (a) amount of spending on training, (b) proportions of people trained, and (c) introduction of integrated and systemic set of human performance policies and practices. This is certainly indicative that organizations are looking to HRD for unique and essential services.
Develops organized and specialized body of knowledge, based on a theory and research	• The Academy of Human Resource Development (AHRD) was established in 1993 with a vision to lead the profession through research. • Three research-based journals have been established during the last seven years: (a) Human Resource Development Quarterly, and (b) Human Resource Development International, and (c) Advances in Developing Human Resources. • The extent to which the body of knowledge that HRD draws upon is specialized and grounded in theory is currently an issue of much debate (Jacobs, 1990; Watkins, 1990; Brethower, 1995; Swanson, 1999; McLean, 1999). However, the fact that this is such a vital issue can be considered indicative of some progress in this area.
Defined area of competence	• Many competency models have been produced, most notable include McLagan (1989) and Rothwell (1996).
Values	• Ruona (2000) has recently reported results of a qualitative study exploring core beliefs underlying HRD.
Standards of Practice and Ethics	• The Academy of Human Resource Development introduced a first draft of a Standard of Ethics and Integrity in March, 1999 (AHRD, 1999). • OD, an emerging profession in its own right and considered to be part of the tripartite that comprise HRD, has recently published its 22nd revision of its International Code of Ethics (Organizational Development Institute, 1999).
Monitors the practice and its practitioners	• The same AHRD committee that is drafting a Code of Ethics for HRD is currently discussing issues of enforcement. • There is increasing talk in HRD's literature about certification (Ellinger, 1998), and alternative ways to monitor for quality and ethical practice in HRD.
Educates and trains professionals	• There are numerous academic programs in HRD and closely related topic areas nationally and internationally. A 1998 ASTD directory of academic programs listed over 280 programs in the United States (White, 1999). • ASTD recently began offering certificate programs all over the United States in an effort to educate on specific competencies.

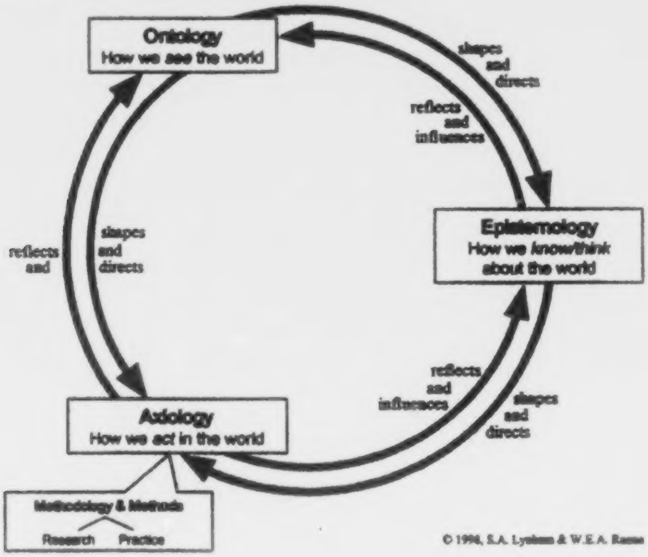
three areas all work together to make philosophy what it is. In this sense, from a systems perspective, the whole is more than the sum of its parts.

Ruona and Lynham (1999), after a study of the various components of philosophy and their relevance to HRD, view them as three key, interacting components:

- Ontology: the component that explicates a view of the nature of the world and of phenomena of interest to HRD (how we *see* the world);
- Epistemology: the component that explains the nature of knowledge in HRD, and the necessary and sufficient requirements to hold and claim knowledge in the field (how we *know/think* about the world);
- Ethics: the component that makes explicit how we ought to act, individually as well as communally in HRD. It outlines espoused aims, ideals and proper methodologies and methods for HRD inquiry and practice (how we should *act* in research and practice). (p. 211)

These three components interact in a dynamic and systemic way, together forming a guiding framework for a congruent and coherent system of thought and practice in HRD. Figure 1 shows the interactive and dynamic relationship among the key components integral to a sound philosophical framework. It elucidates the connections—demonstrating that how we *see* the world determines how we *think* about the world, how we *think* about the world determines how we *act* in the world, and how we *act* in the world, in turn, reflects how we *think* about and see the world. And, that each of these components reflects and influences the other.

Figure 1. A Philosophical Framework for Thought and Practice



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Role of Ethics & Codes of Ethics

In this sense, then, ethics are normative. In other words, they indicate how professionals *should* act, and the extent to which this action should be congruent with ontological and epistemological aims and ideals. Ethics urge congruence between ontological and epistemological assumptions and the espoused actions of a field. Thus, they play an important role in putting the standards and requirements of acceptable methodology and methods for research and practice in a field in place. Making ethics explicit helps to set and clarify the guiding tone and rigor for action in HRD.

The intent of codes of ethics such as the *Standards* is not to prescribe or to limit the richness of beliefs and values that are held in a diverse professional community. Rather codes of these kinds are minimalist in nature—tending to identify the lowest common denominator that holds the community together. As a result, codes are often quite general and universal principles that require personal interpretation, application, and reflection.

Developing and Fostering Professional Ethics: The Role of Professional Organizations

To a great extent, then, the codes of ethics outline the "should" for its professional members—the best practices and standards for practice. However, some will argue that they are worth little if they do not actually shape practice in the field, and that without some system of enforcement they cannot have any influence over thought and action in HRD. The following section outlines the critical role that professional associations play in developing ethics in a profession. Because these associations are often at the nexus of individual, institutional, and legal interests pertinent to a particular field, they ultimately have immense influence over shaping, rather than proscribing, ethics.

Role in Developing Core Concepts

Professional associations have common characteristics that give members collective identity. The characteristics include a common set of values, beliefs, and behaviors that members share and pass on (Knox, 1992).

Schein (1972) states that professions have a "calling" to a lifetime work and an accumulation of specialized body of knowledge and skills members acquire over a prolonged period of education and training. The possession of extensive knowledge gives professionals a great deal of power, influence, and status. Professional associations attempt to protect core principles and practices, or the technical basis of the knowledge (Engel & Hall, 1973). This often means defining and delimiting their interests in view of non-professional individuals and groups (Harries-Jenkins, 1970). It also entails producing commitment among members. By forming associations, professionals can develop a shared understanding of foundational principles, beliefs, and practices that govern how members apply knowledge.

Role in Learning

Through associations, professionals can also develop and expand the collective core technical knowledge. By sponsoring formal learning events (such as workshops, seminars, symposia, and conferences) professional associations stimulate discussion and publish scholarly papers. Formal learning events not only build upon an existing base of professional knowledge, which associations transmit to members; the events also communicate knowledge to individuals and organizations having interests in the profession (Kornhauser, 1962). Formal learning enables associations to arrange contexts and media for disseminating information and to regulate, to some extent, its application.

Professional associations also encourage informal learning among members as further means to communicate core knowledge and ethical use. Informal learning is distinguished from formal primarily in its use of 1) experience rather than theory, 2) unintentional motives rather than planned objectives and systematic action to achieve goals, and 3) use of self as the basis for learning rather than persons outside oneself (Merriam & Caffarella, 1991). Informal learning may be encouraged through a variety of ways. One form of is adapting styles and tactics through vicarious learning (Gioia & Manz, 1985). Knowledge gained from seeing how adept individuals typically approach problems, identify and gather resources, develop tentative hypotheses, and carry them out can provide ideas for application to a variety of decision-making situations. Further, professional associations can enhance the development of less-experienced members through committee leadership, service opportunities, and formal learning facilitators. Through professional association networks, members can identify mentors who may support career development (Miller, 1985; Rusaw, 1989; Wolf, 1983).

Role in Developing Metacognition

Ethical knowledge is a type of metacognition, which functions as blueprints for behavior in the ill-defined expectations of practice. Although long periods of formal study may have equipped professionals with requisite technical knowledge for entry into a field, professional associations have, as noted, assumed guardianship of learning beyond the academic years. Metacognitive development often appears as "sensemaking," (Weick, 1979) in which professionals develop meaning of complex and novel situations and determine direction for action. Professional associations, through their formal and informal learning experiences, become forums from which members can examine their assumptions and standard responses and learn different ways to think about the difficult problems and issues they face. Through associational learning events, members can develop knowledge classification schemes that enable them to define "professional" conduct in particular instances.

Role in Socialization

Professional associations are important agents in creating a community among members. The basis of community is not only a shared body of core concepts and values acquired through knowledge acquisition and judgment; it is a feeling of identity with others and with a larger purpose. In promoting understanding and right application of knowledge through personal and interpersonal relationships, professional associations can strengthen member commitment (Brockett, 1988).

Professional associations encourage community through various forms of socialization. Socialization involves transmission of knowledge and cultural understanding, legitimization of credentials, and personal development of others (Jarvis, 1987)—processes that frequently occur as rites of passage or as rituals. Through formal and informal socialization processes, professional associations pass on expectations, values, and core ideologies (Van Maanen & Schein, 1979).

Proscriptive versus Ascriptive Socialization. Some professional associations socialize members proscriptively, or through direct control over individual decisions made on behalf of clients. Proscriptive socialization gives the professional associations authority via the extent of formalized learning, the type of enforcement sanctions permissible, the degrees of allowable discretion, and extent of shared agreement to a technical core of information. Professional associations having legal authority over administering a clearly-defined body of technical knowledge have coercive power. They frequently use licensure, authorized according to statutes, as a means of compelling members to take courses. Further, proscriptive associations have governing boards that are enacted by law to arbitrate ethical conduct. An example of a proscriptive professional association is the American Medical Association.

Other professional associations, however, accept members from a variety of disciplines and develop codes of ethics based on commonly-agreed upon values, beliefs, and principles. The basis for enforcing ethical codes in voluntary professional associations is "ascriptive" or commitment based on weight of shared tacit understanding. Socialization dimensions in ascriptive professional associations are individual, informal, random, variable, serial, and investiture. In essence, ascriptive professional associations accept the existing values, beliefs, and practices of members and integrates them into an evolving base of knowledge and practices. Ascriptive professional associations, which frequently admit individuals from diverse disciplines, may form from new or rapidly changing fields of knowledge. In ascriptive professional associations, it is difficult to define and to reproduce a core body of knowledge, and, consequently, it is difficult to develop and enforce a common code of ethics. Codes that are developed are usually broad, generic, and humanistically oriented and emerge by membership discussion and consensus. As with the AHRD *Standards*, the codes encourage adherence through moral commitment.

Strengthening Moral Commitment to Ethics: Some Implications for AHRD

Although the Academy of Human Resources is not a proscriptive socialization agent, it can facilitate commitment to the codes of ethics by playing the role of an inspirational leader. The inspirational or charismatic role of individual leaders has been widely described in management literature (Shamir, House, and Arthur, 1988; Trice and Beyer, 1986; and Bass and Avolio, 1994). Some salient characteristics include creating a noble vision of a desired future state, showing strong commitment to certain values or ideals, managing meaning through use of symbols, building favorable images, using techniques of impression management, shaping expectations through rewards, and stimulating intellect and creativity. If individual leaders affect the character of their organizations, then professional association leaders who display inspiration can create an inspirational professional association. How might AHRD accomplish this?

Create Shared Vision and Values

The Academy for Human Resource Development may help construct a common future scenario of the field through sponsoring formal and informal learning events. Learning involves the re-ordering of ideas as well as affections to achieve a particular goal. The academy can encourage learning through posing the types of goals HRD can and should pursue. Facilitating symposia, workshops, search conferences, and conferences are excellent learning vehicles.

Foster Changes in Behavior and Conduct

Along with envisioning common futures, the Academy can guide developing member responses through training programs. Workshops focusing on attitudinal outcomes and behavioral changes are especially key. These learning events might be centered about ethical dilemmas that practitioners may encounter, such as choices concerning types of information to reveal during client feedback sessions.

Create Rewards and Incentives for Ethical Conduct

The Academy leaders should focus on the use of an array of psychological and affective rewards to reinforce ethical standards and conduct among practitioners. These could include formal recognitions of individuals and groups that have exemplified ethical conduct in their areas of practice. Rewards could also be given to research that examines ethical practices and contributes to behavioral and social science. In addition, the Academy could promote certification programs that infuse ethical conduct in personal and client relationships. Such a program should be voluntary and completion should carry prestigious weight in assessing individuals' portfolios of credentials.

Promote and Disseminate Basic and Applied Research

A hallmark of a professional society is the production of research and writing in a given discipline. The Academy has already taken a lead role in sponsoring research and disseminating it in professional journals and meetings. A primary research agenda to strengthen ethical conduct would be to promote both empirical and field studies. Some examples might be studies of human resource management decisions, uses of pay and incentives in organizational change, contracting relationships with clients, small group problem solving interactions, and downsizing dilemmas.

Conclusion

The Academy of Human Resource Development has taken an important first step in recognizing the importance of ethical principles and conduct among members in publishing the *Standards*. Because of the diverse disciplines within HRD, as reflected in the backgrounds and characteristics of members, however, the AHRD cannot proscribe use of the *Standards* and impose controls for their violation. The society can, however, promote adoption of the *Standards* by facilitating their understanding both at the ontological as well as practical levels. This can be accomplished through sponsoring formal and informal learning events, creating incentives for valuing and practicing ethical conduct, encouraging research into HRD ethics and publishing results widely, and modeling ethical conduct among AHRD leaders. In brief, the development of the *Standards* provides a blueprint for further development of professional ethics. Reinforcing these standards, a critical next step for the Academy's role as a professional association, involves a commitment to act upon them.

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Understanding the Work Beliefs of Nonprofit Executives through Organizational Stories

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To strategically support the unique needs of nonprofits, HRD scholars and practitioners require a deeper understanding of the culture and of their executives who shape their belief systems. Through qualitative interviews that featured a story component, a core theoretical concept emerged that suggested that nonprofit executives are a diffuse managerial subculture. The study's participants saw themselves operating in a complicated and ambiguous world as they balanced business and personnel requirements with the spiritual motivation of their service mission.

Keywords: Nonprofit Executives, Qualitative Research, Stories

Today, more than ever, HRD is needed in nonprofit organizations. Driven by a dwindling volunteer population, a larger reliance on a small but permanent staff, and demands for improved structure and greater accountability (McFarland, 1999; Young, Bania, & Bailey, 1996), our expertise is called upon to help these agencies more carefully align personnel requirements and organizational structures with missions and business objectives (Sheehan, 1996). To effectively nurture cultures where new systems of performance management can thrive, HRD professionals must clearly understand the assumptions and goals of nonprofits, in general, and of their executives, in particular. Available research on nonprofit executives is limited in its quantity and its theoretical grounding. Missing, in particular, are data that explore the cultural side of nonprofits (Austin, 1989; Levy, 1988; Schmid, Bar-Gal & Hasenfeld, 1991; Young, 1987) and the perspectives and behaviors of their directors.

Problem Statement

Studies suggest that an organization's executives greatly shape formal and informal codes and assumptions (Hansen & Kahnweiler, 1997; Kouzes, 1999; Schein, 1985; Trice & Beyer, 1993) and thereby influence our strategic significance (Hansen & Kahnweiler, 1995). What we know about the subculture of executives' beliefs comes mostly from research conducted in the for-profit sector (e.g. Gustafson, 1984; Jackall, 1988; Knudsen, 1982). However, nonprofit organizations are different (Drucker, 1990a, 1990b; Egri & Herman, 2000; Gelatt, 1992; Najam, A., 1996; Vladeck, 1988) and their environments offer greater challenges and hazards to our field. Because the goals of nonprofits are typically not hard financial targets, but soft human issues that must respond to the sometimes diverse needs of multiple contingencies, accountability is an ever-present struggle (Luecke, Shortill, Meeting, 1999; McDonald, 1996; Rojas, 2000). Likewise, forecasting is less predictable as nonprofits are often at least partially staffed by volunteers and funded by grants and/or charitable contributions (Heimovics, Herman, & Coughlin 1993). It is this sense of ambiguity and uncertainty that causes the systematic application and accountability of HRD interventions to be a formidable task.

Theoretical Framework and Research Questions

The most extensive form of sub-cultural patterning is linked to the kind of work people do. Occupational subcultures are distinct groupings within a larger organizational culture (Trice & Beyer, 1993) and are cohesive despite the fact that they typically cross organizational boundaries and often lack consistent face-to-face interactions (Haralambos & Holborn, 1991). Shared tenets spread throughout the subculture forging professional ties, creating social bonds, and influencing each executive manager and his or her respective organization (Trice & Beyer, 1993).

This theoretical body offered a foundation for the following research questions.

- In what way(s) do nonprofit executives define their function and mission?

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- What do nonprofit executives see as significant motivating factors, obstacles or risks in their organizations?

Of particular interest to our study was prior research on for-profit executives (Hansen & Kahnweiler, 1997; Mintzberg, 1973, 1989). Mintzberg's findings supported our own by showing that a manager's work is fragmented, diverse, and with much emphasis on personnel issues. Hansen and Kahnweiler also found that people concerns were a high priority. In particular, their data illustrated the executives' tendency to reproduce their own values by unconsciously promoting and grooming individuals who shared their belief systems. Additionally, business acumen was valued more than technical skill. In nonprofits, permanent staff is small in number and typically hired for their technical knowledge. This difference led to the following research question by causing us to wonder how nonprofit executives might view personnel development and its link to organizational missions.

- How do nonprofit executives see themselves, their personnel and their organizational structures and missions as similar or different from their for-profit counterparts?

Finally, a study of HRD specialists in for-profit organizations by Hansen, Kahnweiler, and Wilensky (1994) indicated that practitioners in our field were highly dependent on the strategic support of executive management in order to carry out their work. An HRD specialist's ability to gain this aid was influenced by the degree to which the practitioner's goals and tactics were similar and therefore compatible with the cultural beliefs of executive management (Hansen & Kahnweiler, 1995). We thus asked the following research question.

- How might the beliefs of nonprofit executives influence HRD goals, priorities, and strategies?

Methodology

We chose the organizational story as a tool for studying the subculture of nonprofit executives (Conger, 1998; Hansen & Kahnweiler, 1993). More than most other data collection methods, stories allow researchers to examine perceptions that are often filtered, denied, or not in the informants' consciousness (Martin, 1982). As such, it is not necessary for stories to be factual representations of events, relationships, or ideology. Rather, a story reflects what a cultural member believes to be true, not what others may confirm as true. (Feldman, 1991; Martin, 1982; Martin & Powers, 1983; Mohan, 1993).

A unique aspect of the story analysis used in this study was the examination of the stories' individual components. Drawing from previous research models (Hansen & Kahnweiler, 1993; Hansen, Kahnweiler, & Wilensky, 1994), story elements included heroes, villains, motivating forces, morals, and plot development. It has been found that a subject's perception of what constitutes a hero or a dilemma, for example, influences plot development and subsequently reveals what the informant considers to be positive or negative forces and conflict resolution methods (Hansen & Kahnweiler, 1993).

Story data were collected by the lead author through open-ended interviews with 28 executives (11 females and 17 males) from 28 organizations and provided the primary data set for this study. At the time of the research, each interview participant was serving as director or assistant director of a national or international nonprofit organization. Interviews took place at each nonprofit's U.S. headquarters in Atlanta, Boston, New York, or Washington, D.C. Participants were obtained using snowball sampling which allowed key participants to identify social and professional networks from which the interviewees were drawn (Bernard, 1988). In line with guidelines developed by Herman and Heimovics (1989, 1990, 1991) the participants came from publicly supported nonprofit organizations; executives from grant making foundations or religious institutions were not included, and executives from hospitals and colleges were excluded on the basis of institutional complexity and competition from other sectors.

Individual interviews were audiotaped and transcribed. They lasted between an hour and two hours and consisted of two parts. First, participants were asked to relate a short story about their organization. Following, a semi-structured interview scheme, participants were asked to identify the story components and these interpretations offered a base for probing their beliefs related to the research questions. Triangulation was accomplished through the review of executives' annual reports letters as cultural artifacts and though the observation of executives' focus groups. The study utilized grounded theory methodology to inductively code and derive categories and thematic relations (Strauss & Corbin, 1990). While the data from this qualitative study are not generalizable, and are limited to nonprofit organizations, we believe that the findings illustrate probable differences between the for-profit and nonprofit sectors.

Research Findings and Conclusions

The results are organized and presented in accordance to their link with the first three research questions. The fourth research question connecting this study's findings to the work of HRD practitioners is addressed the final section of this paper.

Missions and Functions

While exploring the first of the four story elements (heroes, heroines, and positive forces), we found that executives were very willing to discuss the positive aspects of their organizations, usually intertwining their missions and visions of their organizations with this component. In executives' stories, the mission of the organization was often described in terms of its ethical commitment to serve the community and address societal problems. Throughout the data, the mission was communicated with great passion and commitment, typically concerning lofty ideals and values about human potential and the necessity of equalizing the imbalances and injustices that exist in contemporary societies. Culminating in a kind of spiritual expression, the executives saw work in nonprofits as encompassing a social consciousness and commitment as well as divine inspiration and benevolence. This spiritual expression permeated these executives' conceptualizations of work. The challenge was to change the world by making a difference in the lives of individuals. Through building capacity, providing support, administering care, and critical intervention, executives perceived the work of nonprofits as a way to affect and heal humanity. A participant wrote:

> I think we have to live our lives with purpose and meaning and we have to make sure the world is better when we leave it than when we found it. I think we have to model caring and concern for our children and our friends. This agency allows me to do it. We live in a world where we have to learn to live with others and build ties with them. You hope the world can change. But nothing will happen if you don't go out and do it.

Having limited administrative budget and support staff, nonprofit executives typically viewed their power to come not from financial ownership in the company, but primarily from their ability to maneuver and motivate people around the mission. They spoke, in particular, about change issues, which were frequently worrisome to the board, staff, and clients. Thus, organizing and monitoring these stakeholders was a substantial responsibility and consumed extensive amounts of their time and energy.

Organizational and personnel development also emerged as an important functional role that served as the focus of story plots. In particular, the participants were concerned with altering organizational systems to remain current and responsive to their rapidly changing circumstances. To this end, an organization's people (both staff and volunteers) were considered to be its essential strength. A participant said:

We are made up of a very small paid professional staff. I really believe that Drucker is right. I don't believe there are any volunteers; there is paid and unpaid staff. And our volunteers are the vast majority of our organization. They are the unpaid staff. And we treat them as staff in that we give them as much quality information as we can in order for them to move us toward the mission of our organization. Our job as paid staff is to make sure that we research, find the answers, ask the questions, and develop the techniques by which these volunteers can be effective.

Of note was that over half of the stories' plots concerned the offering of quality services that would empower and change people's lives in times of bottom-line accountability. Thus, finding adequate funds to provide programs intrinsic to their organizational missions and administering their operations in a cost-efficient manner also emerged as another fundamental part of their work. This function was described as difficult and the lack of business acumen was often seen as a story villain. Much of this data was linked to the second research question regarding perceived obstacles.

Motivating Forces, Obstacles, and Risks

The spirituality associated with the participants' work was a primary motivating force. This point is particularly remarkable when considering that no religious institutions were included in the sample. These executives frequently regarded ethical principles as the hero or positive force of their stories. A concern for ethics thus provided the main catalyst for offering quality services that were superior to those mandated by government legislation. Established on high ideals and ethical foundations, this quality was often portrayed as the embodiment or articulation of divine inspiration. Divine inspiration was the basis of the executives' explanations for the ability to persevere through trials and barriers in order to accomplish their organizations' missions. One participant stated:

> (We) run what is something between a cross of a business and a ministry. You've got to be called to this kind of work and see that there is a way to serve, to give back.

In addition, people were consistently identified as heroes and motivating forces in participants' stories. Executives frequently mentioned their appreciation of volunteers in moving their organizations' missions forward. It is noteworthy that, while focusing on the abilities of others, executives repeatedly denied or diminished their own individual importance in the organization. Moreover, this self-effacing quality was apparent when executives judged the significance of the organizational mission to be more consequential than the talents or importance of any one particular individual.

Executives also saw people as the primary impediment to the progress or delivery of services of the organization. Participants identified people who misused power, who did not have a vision or a realistic understanding of the problems that the organization addressed, and who would not collaborate or cooperate with change actions, as villains and hindrances. An executive explained:

> It is interesting that no one articulating an [oppositional] view has ever come out of working directly with the people. And it's in your relationships with people that the judgments tend to fall away, when you really understand what you're up against. And I suspect that a lot of political people produce this armchair philosophy, judging people from a distance, and don't really understand the reality of the situation.

As the fourth story element, the stories' morals taught the importance of having faith in all people, be they internal or external to the organization, along with the importance of accepting social responsibility for the less fortunate. People were viewed as having the ability to improve their lives or change the lives of others. Finally, the general ambiance of the government, as well as the organization's relationship with the community or population it served, had important bearing on the ability of the executive and his or her organization to fulfill the mission and serve its clients. Executives perceived meeting the needs of clients as the most important barometer of organizational success and as the primary reinforcement for nonprofit work. Of particular note was a belief in the importance of offering quality services through committed people who were open to change and collaboration but whose work was constrained and complicated by legislated mandates and funding control.

Comparison to For-Profit Counterparts

Without exception, nonprofit executives believed that for-profit organizations are more easily managed and accomplish tasks in a relatively simplistic manner. For-profits were seen as existing to produce specific goods or services for consumers who had a disposable income. Moreover, for-profit executive management was seen as having a large budget and support staff with which to exercise extensive control over organizational processes, products, employees, and other stakeholders. The lack of which often played the villain in the participants' stories.

Because the nonprofit product was less concrete and definitively more people-focused than a for-profit product, executives believed that a bottom-line evaluation of success was difficult at best. They concluded that the unique demands generated by stakeholders and the instability of funding assurance, coupled with the lack of predefined and reinforced positional power made executive management in this sector a unique experience. Executives concluded that the bulk of operational processes could take place in any venue or sector, but that funding concerns and managing volunteers presented unique situations only present in the nonprofit world.

Conclusions

Strong consistent patterns from the study's participants regarding how work was defined are in keeping with studies of occupational cultures (e.g. Trice & Beyer, 1993). A particular distinction of these findings was the altruistic nature of the participants' calling and organizational goals. As a contrast, studies of for-profit executives have addressed the functional nature of their work; they have not included spirituality as a primary aspect (e.g. Daft & Weick, 1984; Moussavi & Evans, 1993). This common sense of "being different" from for-profit counterparts was an important theme that emerged in data associated in the third research question and a key denominator in the sub-cultural development of nonprofit executives. Additional aspects of occupational bonding found in the data addressed the second research question. These included similar perceptions of threat in the form of external constraints, inter-organizational competition for and the instability of funds, and an unrealistic or disinterested societal grasp of their work. Two final bonds that are consistent with the literature on occupational sub-cultures were the inability to distinguish work from non-work and the belief that self-image is enhanced by one's labor. The data from this study indicated that these criteria were fulfilled through an ethical focus and a spiritual expression of the participants' service missions.

Inspirational and benevolent qualities that both distinguished and motivated these executives was based on a strong ethical commitment that has been suggested in prior research. O'Neil (1992) for example, theorized that in nonprofits, ethical issues are more important and therefore, management is more complex than in other sectors. Also confirming this premise, Rubin (1990) developed a theory of sectorial ethics and surmised that legal and normative ethics in relation to administrative and technical practices in nonprofits were more complex than in for-profits.

Implications for HRD

Not only do the perspectives of top executives influence how an organization's mission is interpreted, it is also important to note that top management influences the nature of educational and developmental interventions not only for themselves, but also for their employees (Raghuram, 1994). Data from this study confirm such tendencies in the nonprofit sector. It thus seems reasonable to assume that, as in the for-profit sector, dissonance between the work of HRD specialists and the organization's prevailing beliefs may send confusing signals and often results in low employee retention, performance, and morale. The more knowledge we garner about executive management in nonprofits, the easier it will be for HRD professionals to determine what organizational and employee development goals, strategies, and priorities will most effectively support both functional and spiritual missions.

Goals and Priorities

This study confirmed that consistent with their counterparts in other sectors, nonprofit executives place high priority on their staff. This finding is constant with studies that stress the alignment of personnel skills, a sense of identity (Dutton & Dukeridge, 1991; Margolis, 1998), and a shared mindset (Ulrich et al., 1993) with an organization's beliefs and goals and thus suggests that the recruitment and retention of appropriate staff is paramount. Nonprofits need staffs that, like their executives, are motivated by the spiritual expression of their mission. This is a baseline criterion for these personnel; however, it may not be entirely limited to this sector. While for-profit executives appear to be more driven by financial gain, their employees are increasingly motivated by spiritual work connections which may be a factor in retaining talent, and drive alignment concerns as recently evidenced in both the academic and practitioner literature (e.g. Moxley, 1999; Vaill, 1998). Staff are also needed whose business acumen enables them to carry out the functional mission while possessing the spiritual values needed to embrace the ethical principles of the organization's societal charge. As nonprofit executives perceive their roles and organizations to be culturally fraught with unique and complicated conditions, it is also critical to hire personnel who can cope with the ambiguity of changing environments and accountability issues that are often difficult to control and define.

As nonprofits respond to the new demands of their constituents, they will need management systems that support more efficient work styles, levering of resources, and strategic planning. Nonprofits can reduce fear and support change by transforming their cultures into learning organizations that benefit from cross-functional collaboration and the sharing of lessons learned from prior successes and failures. Such environments are generally associated with collective meanings (Dixon, 1997) and lead to high trust cultures which are considered to be more effective in promoting synergistic problem solving and innovative risk taking (e.g. Fukuyama, 1995; Organ & Ryan, 1995; Van Dyne, Cummings & Parks, 1995).

Strategies

Finally, in implementing these recommendations, HRD professionals must gain the trust of nonprofit executives in order to obtain resources, have autonomy, and be influential. Research on trust (Kramer, Brewer & Hanna, 1996) suggests that such bonds occur from viewing organizational threats in a similar way and by developing a willingness to depend on others. Studies of trust and top management in the for-profit sector suggest that confidence concerns are extremely important to them because they must make important decisions based on very little certainty (McCall & Lombardo, 1983). Data from this study suggest that the issue of trust may be even more important for the nonprofit executive who sees himself as operating with less control than his or her private sector counterparts.

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Work-related Values of Managers and Subordinates in Manufacturing Companies in Germany, Georgia, Kazakhstan, the Kyrgyz Republic, Russia, and the U.S.

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This paper is based on a survey of over 4,000 respondents from ten manufacturing companies in two Western countries and four countries of the former Soviet Union. The study is using Hofstede's framework and instrumentation, and explores work-related culture dimensions of managers and employees in the ten companies. The results point to within and between country variation in cultural dimensions, differences between managers and their subordinates, and the influence of demographic factors on culture.

Keywords: Culture, International HRD, Work values

One of the focal issues in comparative and cross-cultural organizational, management, and human resource-related research is the impact of culture and cultural values on management and organizational behavior. Societal culture, which can be described as a 'collective mental programming' of people who share a similar environment, shapes work-related cultural values and behavior in organizations (Hofstede, 1997). In recent years, given the expanding international trade, business, and investment activities, and the growing presence and influence of multinational enterprises (MNEs) throughout the world, research on work-related cultural values has grown both in amount and criticality (Thomas & Mueller, 2000). Understanding variations in multiple cultures and the differences in work-related values across the globe is an essential criterion for competitive survival (Adler, 1991). Inadequate awareness of international variations in cultural systems, including values, can exacerbate expatriate failure (Black & Mendenhall, 1989; Nicholson, Stepina, & Hochwarter, 1990; Tung, 1987). It has been observed that business practices vary as a result of work-related cultural value differences (Ronen, 1986; Ronen & Shenkar, 1985), that management styles are culture-specific (Bartlett & Goshal, 1992; Carlson, Fernandez, & Stepina, 1996; Dorfman & Howell, 1988; England, 1978; Ronen & Shenkar, 1985), that human resource management practices must be tailored to fit local conditions (Nasierowski & Coleman, 1997), and that national culture affects the value and belief components of organizational culture (Cavenaugh, 1990; Chatman, 1989; Louis, 1983; Schein, 1992).

This paper reports the results of an empirical study of work-related culture dimensions of managers and employees. The study represents the first attempt to compare work-related cultural values of managers and employees in four countries of the former Soviet Union, and in the West, which is especially important given the need for generating normative recommendations for policy makers, business executives, investors, and training professionals seeking to facilitate the transition of the newly independent states to a democratic society and market economy. The study was conducted in ten manufacturing enterprises in four countries of the former Soviet Union (Russia, Georgia, Kazakhstan, and Kyrgyz Republic), and two countries of the West (the US and Germany). The choice of these countries was dictated by the following design considerations. First, we wanted to compare countries with established market economies and those undergoing radical economic transition; second, we wanted countries in the two groups to share, on the one hand, institutional, political, and economic frameworks, and to have, on the other hand, different socio-cultural and historical backgrounds. The four post-communist countries in this study share institutional and economic frameworks that emerged as a result of more than 70 years of communist regime. At the same time, they have different historical and cultural legacies: Georgia, the Kyrgyz Republic, and Kazakhstan have been absorbed by the Russian empire fairly recently (in the 19th century), have long and rich histories of prior independent statehood and cultural development, and all have different official languages (Brown, 1994). Similarly, Germany and the US share the foundations of the economic system (capitalist market economy), and have similar levels of technological and economic development, but have significantly different socio-cultural, political, and historical legacies. Finally, we have chosen companies from the same sector of industry—manufacturing--as opposed to services, transportation, or agriculture. Thus, controlling for a number of country-

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level environmental factors, and for the industry factors, we created conditions under which the similarities and differences in work-related value dimensions observed in different countries become more salient.

The study focuses on three major research questions: 1) the degree of variance of work-related cultural dimensions between the six countries; 2) the level of variance in cultural dimensions between two groups of respondents: managers and non-managerial employees; and 3) the role of demographic characteristics (age, gender, and education) in variation of socio-cultural value dimensions.

The five dimensions of Hofstede's framework, used in this study, are well known. The first dimension is Power Distance (PDI), defined as the degree of inequality among people that the population of a country considers as normal. The second dimension, Individualism (IND), is the degree to which people prefer to act as individuals rather than as members of groups. The third dimension, Masculinity (MAS), is the degree to which such "masculine" values, as assertiveness, competition, and success are emphasized as opposed to such values as quality of life, warm personal relationships, and service. Uncertainty Avoidance (UAI), the fourth dimension, is the degree to which people in a country prefer structured over unstructured situations. Finally, the fifth dimension--Long-term Orientation (LTO), was intended to account for specific traits of many Asian cultures, which have not been covered by the first four dimensions (Hofstede, 1993). Long-term Orientation is defined as the degree to which people's actions are driven by long-term goals and results, rather than the short-term results and the need for immediate gratification.

According to Hofstede (1997), the U.S. business culture is characterized by low PDI, LTO, and UAI, and high IND and MAS. German employees display low PDI and LTO, and high UAI, MAS, and IND. Regarding Russian managers, Hofstede hypothesized that they would be characterized by high PDI, high UAI, medium-range IND and low MAS (Hofstede, 1993). Bollinger (1994) and Naumov (1996) tested Hofstede's hypotheses in their studies of Russian managers, and found support for these predictions on all four dimensions. Elenkov (1997), in his comparative study utilizing Hofstede's dimensions, found that the U.S. managers are more individualistic than their Russian counterparts and the managerial culture in the United States is also characterized by lower power distance, and uncertainty avoidance than the Russian managerial culture.

Prior research providing data on Hofstede's socio-cultural value dimensions for Georgia, Kazakhstan, or Kyrgyz Republic could not be found. Thus, due to the lack of specific findings on these three countries, relational hypotheses regarding the differences in socio-cultural dimensions between all 6 countries in this study could not be developed, and our first research question was formulated as follows:

R1: What are the socio-cultural value dimensions of managers and employees in selected organizations in the six countries? Are there significant differences between these six countries on any of the socio-cultural dimensions?

National culture interacts with occupational culture (Hofstede, 1980; 1997; Trompenaars, 1997). Trompenaars (1997) indicates that "people with certain functions will tend to share certain professional and ethical considerations" (p. 7). Regarding the dimensions used in this study, Hofstede (1997) has found the following relationships between occupational status and culture. First, if a country scored high on PDI, this applied to all occupational levels; in low PDI countries, employees with lower occupational status (e.g., production or clerical employees) had much higher PDI scores than middle and high status professionals and managers (Hofstede, 1997, pp. 30-31). Regarding masculinity, Hofstede (1997) found that the higher status people display lower levels of MAS than skilled production employees (pp. 86-87). On the other hand, Hofstede's (1997) results on IND and UAI suggest that people in different occupations could not be classified into "individualist" or "collectivist" (p.57), or uncertainty avoiding and non-avoiding (p. 117) groups. Follow-up studies have confirmed only some of these observations. Thus, McGrath, MacMillan, and Scheinberg's (1992) have found that managers, when compared to entrepreneurs, had lower Power Distance, Individualism, and Masculinity, and higher Uncertainty Avoidance. Managers, when compared with engineers and production employees, have been found, in a German/US comparative context, to be more highly individualistic, more masculine, and lower on power distance (Kuchinke, 1999). To investigate the impact of occupational culture in the six countries in this study, the following question was formulated:

R2: Are there significant differences in socio-cultural values between managers and non-managers in the six countries on any of the five dimensions?

Hosftede's (1980; 1997) research also indicated the relationship between demographic variables and culture, this relationship allowing to differentiate between groups within a given country. This relationship is complicated by the interaction between the demographic variables. To give just one example, Hofstede (1997) indicates that young men (age bracket 20-29) hold strongly masculine (assertive) values, and young women--moderately masculine values. At the same time, older men (50-59) hold strongly feminine values and have scores comparable to older women (50-59). Hofstede cautions that gender, age, and social class cultures, being categories within larger social systems (national cultures), can only partially be classified according to the five dimensions, since not all dimensions ally to them (p. 17). To investigate the impact of demographic characteristics, the third research question was formulated as follows:

R3: What are the effects of demographic differences in age, gender, and education on socio-cultural values in the six countries on any of the five dimensions of culture?

Method

This study was conducted using causal-comparative, one-shot survey design (Howell, 1992). Twelve sites (3 divisions of one company and 9 independent companies) in six countries were surveyed. Companies in the former USSR were identified and contacted by the Center of Sociological Research (CSR) of the University of Moscow (three companies in Russia, three in Kyrgyz Republic, two in Kazakhstan, and one in Georgia). All ten firms were in the manufacturing sector of industry. Two levels of employees were surveyed: middle-level managers, and non-managerial employees, including engineers and production employees. A survey was administered to stratified random samples of employees of each of the companies in the U.S., Russia and Kazakhstan, and to populations of all employees in Germany, Georgia and the Kyrgyz republic.

The five work-related cultural value constructs were measured by using Hofstede's 1994 version of the Values Survey Module, VSM 94 (Hofstede, n.d.). The VSM 94 has been used extensively in the past and have known psychometric properties (Søndergaard, 1994). The instruments were obtained from the test author in the English and German versions and given to the U.S. and German participants in their native languages. The survey was conducted in Russian in Russia, Kazakhstan and the Kyrgyz Republic, and in Georgian in the Georgian Republic. The instrument was translated into Russian and Georgian by the representatives of the CSR. A back translation was made by independent translators. The translations were compared to the original sources to identify and correct errors that could have arisen from interpretation differences. A pilot survey was conducted with a sample of 100 employees of an experimental plant of the University of Moscow to identify potential problems with the interpretation of terms and concepts.

Since we were interested in country-level comparisons, the results reported in this manuscript are based on pooled country-level data. The country-level response rates ranged from 31% in Russia to 75% in Kyrgyz Republic, with the total number of usable responses at 4,065. To address the issue of possible response bias, chi-square comparisons were made between the demographic data on respondents and on all employees in a given company, obtained from the personnel departments. These comparisons showed no significant differences between survey respondents and non-respondents in the two job categories on key demographic variables. The overall percentage of male respondents was 68%, and higher than 70% in Georgia, Germany, and the US. The two US sites had a much older population with a modal age between 50 and 59 years, while the overall age bracket for the 6 countries was 30 to 39 years. Managers at the German and U.S. sites had a modal level of education comparable to a Master's degree, while non-managerial employees at the German site had a higher modal level of education than their U.S. counterparts. Overall, the educational levels of employees and managers in all four countries of the former USSR were high, with the majority of managers possessing a 5-year college degree or higher, and the majority of employees having at least a 2-year college degree.

Results

The scores for the five dimensions of culture, PDI, IND, MAS, UAI, and LTO were calculated based on the formulae provided by the test authors (Hofstede, n.d.) using weighted means of individual items and constants which result in a distribution ranging from 0 - 100, although higher or lower scores are possible (Hofstede, 1994). This allows for comparisons with previously published scores. The internal reliability for the entire instrument was $\underline{\alpha}$ = .88, but the dimension of Uncertainty Avoidance fell short of the minimum required and was therefore excluded from the analyses. This dimension had shown poor internal reliability in previous studies (see, for example, Kuchinke, 1999; Yeh, 1988). The MAS scale also fell below the recommended value but was included in the analyses because it approximated the cut-off score. However, the low reliability coefficient of $\underline{\alpha}$ = .53 for this dimension raises concerns about its factor structure, and this needs to be seen as a limitation to the study. While most of the culture scores were within the range of 0 - 100, several countries scored above or below. Power Distance scores, in particular, were negative for the four countries of the former Soviet Union, indicating very low levels of this dimension. Although direct comparisons with previously published country scores are not possible—Hofstede's dimensions are meaningful in comparing countries, not tracking change over time—several observations arise. In the original study of IBM employees in 39 countries (Hofstede, 1980), the US had ranked higher in PDI than Germany, in this study, the ranking was reversed. Hofstede's (1993) prediction of high PDI scores among Russian employees was not supported by this study. On the contrary, Russia and the three other former communist countries scored uniformly very low on this dimension. True to prediction and previous findings, the US led the list of countries in Individualism. All four countries of the former Soviet Union scored near the top on MAS. Russia and the Republic of Georgia showed higher levels of long-term orientation than the other four countries.

To answer the questions about country-level differences, a multivariate analysis of co-variance (MANCOVA) was conducted with Country as the independent variable and demographic information (age, gender, and education) as well as job category statistically controlled for. To correct for the heterogeneity of variances among the dimensions (a violation of assumptions for MANCOVA), the sample sizes for each country were equalized by selecting, at random, a sample of 392 from each of the six countries. Given equal sample sizes, as Bray and Maxwell (1985) point out, "all of the test statistics tend to be robust, unless the sample sizes are small" (p. 34). An omnibus MANCOVA showed significant differences ($p < .001$). Follow-up univariate analyses of covariance (ANCOVAs) using conservative Scheffe post-hoc tests showed these differences in more detail. To facilitate the description of the contrasts in culture dimensions, Table 2 also indicates which countries differ on each dimension. The four countries of the former Soviet Union had uniformly low levels of Power Distance compared to the US and Germany. These four countries also differed from their Western neighbors in terms of Masculinity. Levels of Individualism varied to a much lesser degree, with US employees showing the highest level.

Hofstede (1980; 1997) had pointed to the interaction effects of country and occupation and presented some initial evidence that occupational cultures, indeed, moderate country effects. In this study, the differences between managers and non-managers were assessed. Significant differences between both occupations groups were found for the entire sample and for each of the six countries. Overall, managers tended to be lower on PDI, more highly individualistic, subscribing to more masculine values, and were less oriented towards the long term. Individual countries, however, differed form the overall sample. For PDI, only Russia and Georgia showed differences between managers and non-managers; Russian managers tended to have lower PDI scores than non-managers, while Georgian managers ranked higher. In Russia, Kyrgyzstan, and the U.S., managers expressed more highly individualistic values. Masculinity differentiated the two occupational groups only in Georgia where managers subscribed to values that were oriented more towards caring and nurturing. Long-term orientation, finally, was found to differ between the two groups in Kazakhstan and Germany. In both countries, managers were less oriented towards the long-term than their subordinates. Cultural values are influenced by country, occupational, and demographic variables. To assess the relative strength of each, hierarchical regression analyses were conducted for each of the four culture dimensions as dependent and three sets of forced-entered independent variables: (1) country; (2) job category; and (3) age, gender, and education level. For each dimension, country membership emerged as the strongest predictor, explaining between 35% (LTO) and 46% (PDI) of variance. Job category emerged as a predictor only for IND and added very little to the variance. Age, gender, and education were significant predictors for all four dimensions, but here, too, their contributions to the variance in the dependent variables were small.

The final set of analyses addressed the effects of age, gender, and education and their interaction on cultural values. Univariate analyses were conducted for each of the four dimensions of culture and the three demographic variables as independent variables, holding job category constant. The relationship between PDI and Education was curvilinear, with employees with a bachelor's degree being more highly accepting of an inequality of access to power than employees with higher or lower levels of education. Female employees scored significantly lower on the dimension than their male counterparts. Education levels also influenced IND, and here, too, the relationship was curvilinear: employees with high school education ranked much lower on this dimension than those without it and those with a bachelor's degree or higher. There was also an interaction effect between gender and age: male employees aged 40 or younger showed markedly higher levels of IND than their female peers, but males of age 41 or older scored lower than their female colleagues of similar age. For MAS, there was a monotonous increase in masculine values associated with age. For LTO, finally, the distributions by age and education levels were bimodal. Employees between 31 and 40 and those between 51 and 60 were less inclined to orient themselves toward the long-term than the other age brackets. Similarly, employees with a high school diploma and those with a master's degree as the highest level of education scored higher on this dimension (indicating lower levels of long-term orientation) than employees who did not graduate from high school or had attained a bachelor's degree.

Implications, Limitations, and Future Research Directions

Related to country-level comparisons, this study found significant differences to Hofstede's data on work values on some dimensions. Hofstede's (1984; 1997) data had indicated that both the US and Germany had low PDI, high IND, relatively high MAS, and low LTO. Our data confirmed the Hofstede results on IND, PDI, and LTO.

However, our findings differed from Hofstede's results on MAS: for our sample, this index has migrated into the low category. A comparison of our data with findings by Rotondo et al. (1997) suggests that this observations may not be due to idiosyncrasies of our specific sample: our results are consistent with Rotondo et al. (1997) findings on PDI, IND, and MAS. Both Rotondo et al. and our findings on MAS could be indicative of a generational shift in work related values, away from assertiveness, materialism, and separation of women's and men's roles towards more nurturing atmosphere and conditions under which women increasingly gain positions of power and influence in the society.

Our study has also found significant differences with most of previously published scores for Russia. First, although previous studies have found high levels of PDI in Russian managers and employees (Bollinger, 1994; Naumov, 1996; Elenkov, 1998), we (and earlier Rotondo et al. 1997) have found low PDI scores for Russian respondents.

Regarding MAS, the study findings were in contrast with Hofstede's (1993) predictions on Russia, and earlier findings by Bollinger (1994) and Naumov (1996) who argued that Russian managers ranked low on MAS. In this study, Russian managers and employees had high levels of MAS. Again, our results were consistent with the Rotondo et al. (1997) findings. The same high MAS scores were obtained for the other three countries of the former USSR. Among potential explanations for these results on MAS is, first, a possibility that a separation between men and women, characteristic of more traditional societies, is still significant in these four countries. At the same time, the MAS dimension is not just describing the gender role differences. Hofstede (1997) indicates that in highly masculine countries, such as many Latin American and Mediterranean nations, achievement, ambition, and possession are valued highly, and there is a greater centrality of work in the lives of individuals along with higher levels of work stress. Therefore, a high level of MAS in countries of the former USSR could be related to difficulties of the economic transition, which, among other things, put a much stronger emphasis on achieving material well-being, high status, and assertiveness in business transactions (see, e.g., Kabalina, 1997; Schreibman, 1998), than is the case in more stable market economies.

The six countries differed less on the dimension of Individualism. While the US was found to be highest, this sample showed Individualism in four of the remaining five countries to be equal and quite high. High levels of the Individualism dimension are associated with an orientation to the Self rather than the community, an emphasis on individual initiative and decisions, identity anchored in the individual rather than the collective, and the norms of autonomy, variety, and pleasure as opposed to order, duty, and security. It is possible that an increase in IND in the former Soviet Union could be traced back to the changes in environmental factors, especially the disappearance of guaranteed life-long employment, a drastic reduction in benefits and services provided by the state, and an increased need for reliance on individual strengths, talents, and hard work. This finding calls into question recent analysis by Kets De Vries, who argued that the "democratic centralism that lay so central at the heart of communism" (Kets De Vries, 2000, p. 76) remains, in fact, a distinguishing characteristic of Russia today.

One of the important implications of this study is that some cultural values might be rooted deeper in culture's fabric and therefore could be less malleable than others. For instance, PDI and MAS scores for the US, Germany, and Russia were substantially different from the earlier reported levels, whereas IND and LTO were closer to the earlier reported or predicted scores. These findings offer a support for an observation made by McGrath et al. (1992) that some cultural values (e.g., PDI) are more malleable than others (e.g., IND). Thus, our study seems to provide support for Rotondo et al.'s (1997) conclusion that although a nation's work-related values reveal deep-seated preferences for certain end states, they are subject to change over time as external environmental changes shape the society's fabric. A practical implication of this finding for managers, researchers, and training professionals is that they should use caution in using work-related value classifications in their work. Instead of relying on previously generated scores, they may need to conduct specific assessments of work-related values for each individual organization they are working with.

Regarding the impact of demographic factors, our study concluded that nationality emerged as the most important predictor of all four work-related values while job classification or demographic characteristics accounted for very little in the variance of each work-related value. This finding speaks to the important role of nationality in culture, despite the fact that recent writing (e.g., Triandis, 1995) questioned the centrality of nationality for determining cultural values.

The study suggests that grouping countries based on cultural, geographic, or religious proximity could be questionable. For example, one could expect that Kazakhstan and the Kyrgyz republic, being closer to one another in terms of geographic location, religion and language, than to Russia and Georgia, would form a homogenous subset, and would differ from the other two republics of the former USSR. However, on all four socio-cultural dimensions, either one or both of the first two countries were aligned with Russia and/or Georgia. This suggests that any attempts to develop strategies, policies, or training programs for the former SU, or to conduct organization development interventions based on Western theories, should be tailored to each country's specificity, and the former SU republics should not be treated as homogenous in their work cultures.

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Valuing the Employment Brand: Attracting Talent that Fits

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Employment branding benefits both individuals and organizations. It functions as a recruiting tool in a competitive labor market and communicates the organization's values and work environment to potential applicants. Individuals may be more or less attracted to an organization depending on their type of career anchor and the extent to which their personal work values are similar to those of the organization. Specific propositions of this developing concept are discussed.

Keywords: Employment Brand, Recruiting, Work Values

Attracting and retaining top talent are two of the biggest challenges facing organizations today. Not only because of the decreasing size of the workforce but also because of the increased competition for the same talent pool. There are a number of trends that threaten a wide-ranging shortage in talent. Until this point, the executive population has grown more or less in line with the GDP. Today's reality is that the size of the workforce is decreasing. Baby boomers are beginning to retire in large numbers and the cohort group moving in to take their place, the 35-44 year-olds in the U.S., will decrease by 15% between 2000 and 2015. A survey of over 6,000 corporate executives revealed that 75% said their companies had insufficient human resources and that this talent shortage was hindering their ability for continued growth (Chambers, Handfield-Jones & Michaels, 1998). Compounding the labor shortage problem is an increase in competition for workers. A booming economy has given rise to a large number of small and medium-sized companies. These companies are targeting the same people as the larger firms and are proving to be fierce competition because of their greater opportunity for impact and wealth. Added to this equation is the Department of Labor's prediction that the number of white-collar jobs will increase over the coming years.

Once new talent has been brought into the organization, the challenge becomes one of employee retention. Turnover is a frustrating and expensive problem and costs industry an estimated $11 billion per year. The cost of replacing an individual can be greater than 100% of an individual's salary if extensive recruiting and relocation are involved (Singer & Fleming, 1997).

Companies are making major financial investments to attract talent and there has been an almost single-minded focus on recruiting by top organizations (Chambers et al., 1998). With technological advances, the manner in which organizations need to recruit candidates has undergone significant changes. Gone are the days when a company could easily control its image in the labor market. Company information is more easily accessible than ever before, with most of it coming from external sources (e.g., press releases, stock prices, analyst reports, Fortune 500 report, Wet Feet Press, etc.). Because of this, organizations need to be more vigilant in managing their employer image. If they do not, the competition will do it for them.

Organizational Identification

Employer image is important because it provides an identity which functions as an attractor for potential job applicants. Based on Tajfel's (1978, 1981) social identity theory (SIT), social identification is the perception of membership to some human collective or group. Some principles of social identification are relevant in explaining why individuals identify with organizations and their subsequent attraction to them. The first is that identification is a perceptual cognition not necessarily related to any behaviors or affective states and the second is that individuals personally experience the successes and failures of the group (Foote, 1951). This means that an individual does not necessarily need extensive contact with an organization to feel identified with it. In feeling this sense of identification, an organization's successes and failures can be personally experienced by the individual. Social identity theory maintains that identifying with specific social categories, such as an organization, enhances one's self-esteem (Tajfel, 1978).

Self-continuity is one of the principles of self-definition that explains both the attractiveness of an organizational image and why it increases identification (Dutton, Dukerich & Harquail, 1994). Steele (1998) maintains that individuals want to preserve the stability of their self-concepts over time and in different situations.

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This stability is either augmented or diminished depending on the individual's perception of his or her organization's identity. Dutton et al. (1994) state that when an individual perceives an organization's identity to be similar to his or her self-concept, it enhances the stability of the self-concept and can strengthen the person's identification with the organization by making the perceived organizational identity more attractive. The first reason for this is that when organizational identity corresponds with one's self-concept, it is easier to process and understand information. People pay attention to and process information pertaining to the self more easily than they process "self-irrelevant" information (Markus & Wurf, 1987). Thus, an organizational identity that matches the self may make that organization more attractive. The second reason for the increased attraction is that there are easier opportunities for self-expression when a person's self-concept and an organization's identity are similar (Shamir, 1991). Super's (1957) self-concept theory posits that people attempt to actualize the skills, talents and interests reflective of their self-concept by means of their career choice. They actively seek a work environment that is similar to their goals, interests and skills (Holland, 1996; Super, 1988). It follows that individuals will be more attracted to an organization where they feel the freedom to show more of their true selves and can behave in ways that are characteristic of themselves and their values. This is because maintaining the integrity of the self and being internally consistent is important to people (Steele, 1998). Behaving consistently means acting in ways that are authentic and reflect one's personality characteristics and values (Gecas, 1982).

In evaluating organizations for possible employment, job seekers usually have limited information (Rynes, 1991). Because it is difficult to obtain adequate information about the numerous aspects of a job before joining an organization, job seekers will use whatever information is available. Several studies on applicant attraction to firms have found that the amount of information provided positively influences attraction to the organization (e.g., Rynes & Miller, 1983). Individuals may use employer image as additional information in evaluating an organization and the components of the job. Just as consumers use brand images as signals about the quality of a product (Shapiro, 1983), applicants use employer images as signals about job characteristics.

Person-Organization Fit

Person-organization fit is defined as the congruence between patterns of organizational values and patterns of individual values. It is about what an individual values in an organization, such as it being a meritocracy (Chatman, 1989). Person-organization fit focuses on the interaction between the organizational values and the individual's values and how it affects the person's behaviors and attitudes. There is a tendency for people to choose situations and to perform better when organizational values match their own (Schneider, 1987). When people do not fit their environment they are more likely to leave the organization (Pervin & Rubin, 1967).

An individual's employing organization is an important aspect of his or her social identity (Ashforth & Mael, 1989). When a person joins an organization, it makes a statement about the person's values (Popovich & Wanous, 1982). Values are conceptualized as relatively stable individual characteristics, over which organizational socialization is unlikely to have much influence (Lusk & Oliver, 1974). Research on work values is based on the premise that they are derived from people's basic value systems (George & Jones, 1997). A value system is "an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance" (Rokeach, 1973, p. 5). Values are important because they guide behavior and provide individuals with criteria against which to characterize their work experiences (Lewin, 1951). Work values are a fundamental aspect of the work experience because they define the meaning that people derive from work, jobs and other organizational experiences (James & James, 1989). Values also function as abstract and relative evaluative standards by which people identify opportunities that will allow them to behave in their preferred modes of conduct (Rokeach, 1973). This would include making judgments about organizations as potential employers and the extent to which individuals would be able to behave in accordance with their values. Research conducted by Meir and Hasson (1982) found that when an individual's values match the values of a particular organization, the individual will be happier and is more likely to maintain an association with that organization.

Research on the effects of work values and job choice decisions demonstrates that individuals are more likely to choose jobs whose value content is similar to their own value orientation (Judge & Bretz, 1992). This suggests that the applicant's perception of the attractiveness of an organization may depend on the values that are emphasized within the organization. This is because a need for congruence causes people to seek consistency and integration among the different elements of their self-concept and making choices about what is really important is a way to maintain this self-consistency. These values constitute a major part of an individual's self-concept and have been identified as instrumental and terminal values (Rokeach, 1973). Instrumental values are preferred modes of conduct and include values such as competence, sociality and integrity. Terminal values are preferred end states of being and include values such as personal gratification, self-actualization and security.

Schein (1990) says that dominant themes emerge for each person in the form of critical skills or abilities the person wants to employ or critical needs or values that govern one's orientation towards life. As time goes on, the self-concept begins to act as a guidance system and as an "anchor" that constrains career choices. He defines the career anchor as part of one's stable self-image and is "the one element in a person's self-concept that he or she will not give up, even in the face of difficult choices" (p. 18). The concept arose from a longitudinal study (Schein, 1978) about the key career choices and events of participants and why they had made certain choices. The reasons for the responses and the pattern of participants' feelings in making these choices were consistent although the career events and changes themselves were very different. Participants referred to being "pulled back to something that fitted better" when they tried a job that did not feel right to them (Schein, 1990, p. 20). This research, along with the interviews of several hundred people in different career stages, led to the development of eight career anchor categories. The career anchors are listed below along with a brief description of each:

> *Technical / Functional Competence.* The exercise of their talent and the satisfaction of knowing they are experts is of supreme importance to this group. These people build a sense of identity around the technical or functional areas in which they are succeeding and they demand maximum autonomy in achieving organizational goals. Challenging work is the most important characteristic of their work.
>
> *General Managerial Competence* – Key motives and values for these people are corporate advancement to higher levels of responsibility, opportunities for leadership and contributions to the success of the organization. Their work and their role in the organization must reflect this.
>
> *Autonomy / Independence* – Regardless of the type of work, this group of people has an overriding need to do things in their own way, at their own pace and against their own standards. They cannot stand to be constrained by other people's rules, procedures, working hours and other norms. This type prefers clearly bounded work within his or her area of expertise.
>
> *Security / Stability* – These people have an overriding need to organize their careers so that they feel safe and secure and so that future events are predictable. Jobs that require steady, predictable performance are preferred and the context of the work is more important than the nature of the work itself.
>
> *Entrepreneurial Creativity* – People with this anchor have an overriding need to create new businesses of their own by developing new products or services, by building new organizations or by taking over existing businesses and reshaping them. The need to create is an obsession and there is a tendency to become easily bored, such that they constantly require new work challenges.
>
> *Sense of Service, Dedication to a Cause* – These people are more concerned with central values they want to embody in their work. They are oriented more towards these values than toward actual talents or areas of competence involved. Career decisions are usually based on the desire to improve the world in some way. Being able to perform work that influences organizations or social policies in the direction of their values is important.
>
> *Pure Challenge* – Some people anchor their careers in the perception that they can conquer anything or anybody. They define success as overcoming impossible obstacles, solving unsolvable problems or winning out over tough opponents. They seek increasingly difficult challenges and do not seem to care in what area the problem occurs.
>
> *Lifestyle* – People who organize their existence around lifestyle are, in one sense, saying their careers are less important to them and, therefore, that they do not have a career anchor. This category is included because a growing number of people who are highly motivated toward meaningful careers are adding the condition that the career must be integrated with total lifestyle. (Schein, 1990, pp. 20-32)

These anchors have been found within a variety of occupations, such that people with different anchors can be found in the same occupation. For example, two marketing managers may have completely different career anchors, which suggest they may be attracted to work environments that espouse different value systems and have different organizational attributes.

Applicant perceptions of job and organizational attributes (compensation, work environment and type of work) have a positive direct effect on attraction to firms (Powell, 1984). Past research has shown that pay and advancement opportunities are important attributes in the job choice process (Feldman & Arnold, 1978; Rynes et al., 1983). The work of Judge et al. (1992) examined these two variables along with organizational values as influences on job choice decisions and found that pay and advancement opportunities were less important than values. Their research suggests that organizational work values are a major factor in job seekers' decisions when information about an organizational value system is available. This information is important to individuals in choosing between organizations and, by providing it, organizations may be able to increase the chances of person-organization fit. Judge et al. (1992) commented that job matching based on value congruence may function when the values are salient, but it may be that the organization's value orientation is not often known to job seekers. The point is that work values can only have an effect on job choice decisions when they are made available. Therefore, it would behoove organizations to consider the messages they convey in their advertising and in their recruiting processes because the accuracy of this information may have implications for applicant attraction.

Employment Branding

Organizational identity is comprised of a shared understanding of the central and unique characteristics of the organization, which can be manifested in qualities such as values and beliefs, mission, structures and processes, and organizational climate (Albert & Whetten, 1985). The SIT literature suggests that the degree to which an organization can differentiate itself from others by providing a unique identity is a way to increase identification. Cable and Turban (2000) demonstrated that recruitment image is positively related to job seekers' evaluations of job characteristics, thus applicants use employer images as signals about job characteristics. An organization can provide persuasive signals about what it represents by influencing a variety of symbols (Pondy, Frost, Morgan & Dandridge, 1983). Some of these signals include the message the organization transmits to the labor market, the images used to visually represent its message and the vehicles to disseminate the message.

Because of increased competition and the current labor shortage, companies that do not distinguish themselves from their competitors are at a significant disadvantage when it comes to recruiting top people. The question is how a company distinguishes itself from its competitors. The answer lies in "employment branding" – the process of identifying what is unique about a company and marketing it to a target population. Branding has traditionally been used to refer to the process of marketing products. The lessons and principles of product marketing can be used to build and manage an employment brand. Employment branding is the establishment and cultivation of a substantive and unique impression in the minds of target applicants (Buss, 1988). It is a process that enables an organization to define and articulate its distinctive employment proposition relative to the competition. Comprised of the package of functional, economic and psychological benefits identified with the employing company (CLC, 1998), a brand is basically a promise to applicants regarding what it will be like to work for a company. The end game is to ensure that applicants have a clear perception of a company's employment value proposition. In developing a brand, a company is essentially building an ownable position in the marketplace that will provide it with a real competitive advantage in attracting talent to the organization. The relationship between the company and its applicants is based on trust and loyalty generated by consistent delivery of the brand promise (Kahler Holliday, 1997). A company creates its brand over time with strong consistent positioning, packaging and performance. Organizations see the branding of their employment offer as similar to the branding of a product in the marketplace. In this case, the labor market.

The employment brand is comprised of a number of attributes, each of which contributes to the strength of the brand. There are 12 dimensions that constitute the overall employment offer (Clemson, 1998): reward system; post employment; external reputation and awareness; policy and values; fairness and cooperation; corporate culture; communication; recruitment and induction; performance management; development; work environment; vision and leadership.

These twelve factors are taken into consideration in developing the employment brand. Branding is a process built from internal and external strengths as well as job applicant perceptions. If a company does not know its benefits and weaknesses from an employment perspective, the brand will not be based on reality. And if the brand is not based on reality it will not deliver on its promise to applicants. Therefore, in order to be effective, the employment brand must be based on research. Branding is the end point, not the starting point, of the process (Kahler Holliday, 1997).

Key Propositions of Employment Branding

Proposition 1: Knowing the target audience results in a more effective employment brand. A critical error in branding is to assume that the employment brand can be presented the same way to all target audiences. Brand campaigns do not always work and one of the reasons is because the brand may not "involve" the applicant. Involvement is a major concept in the marketing literature that describes consumer behavior and refers to the degree of personal relevance (Peter & Olson, 1987). Personal relevance is the extent to which an individual perceives the brand as helping to achieve consequences and values of importance to the individual. The more important and central these desired consequences and values, the higher the consumer's level of personal involvement (Peter et al., 1987). This being said, the brand has to be relevant to what the job applicant is seeking. The marketing of the brand is based on the values and needs of the target market. It is necessary to craft a message that is tailored to the types of applicants the company is trying to attract. Depending on who the target audience is the brand can then be targeted at the interaction between those characteristics that the company possesses and the characteristics sought by job applicants.

Proposition 2: Analyzing a company's employment offer results in a brand that better meets applicants' expectations. The marketing of a brand is, essentially, making a promise to the applicant that his or her experience will match what is being marketed. Employment branding is not about identifying the target group and then changing the brand content to become something the target applicant wants. It is about identifying what the company has to offer, letting the labor force applicants know about it and then figuratively asking the applicant if he or she is interested in being a part of that organization. In order for this to happen, branding needs to be based on solid research. Conducting internal surveys, focus groups and one-on-one interviews is the first step. This is the best way to insure that the process is data-based and will help to begin articulating the company's employment offer. The second step is to conduct focus groups of recent campus hires in the organization to find out the employment value proposition being offered. This group is still new enough to the organization to be able to describe the culture. The third step is to conduct individual interviews with recent hires and past graduate summer interns to get additional in-depth information. Experienced hires are interviewed to determine what a longer-term career with the company may look like and how to market this to prospective applicants. The fourth step is to obtain any existing survey data that may be available, such as a values survey or employee attitude survey.

A summary of the findings across the sources is compiled to develop a list of common themes that will begin to articulate the attributes of a company's employment offer. The themes are used to develop a tag line and supporting message that encapsulate the employment brand. The brand will enlighten applicants as to how the company is different and will communicate the subtle aspects (e.g., culture, values, quality of coworkers) of what it is like to work there. The tag line should be strong to convey something fundamental about the organization to the job applicant. Different functions or departments of the organization should be able to use the tag line and feel it is relevant. It should be vague enough to allow a number of different interpretations in order to have universal appeal.

Proposition 3: Targeting the employment brand to meet applicants' needs and values increases the value of the brand. Applicants evaluate brands in terms of the needs they meet and the values they help satisfy. Because of limitations in cognitive processing, applicants cannot consider each and every attribute of an employment brand when making a job choice decision. For this reason it is important to identify the attributes that are most important to applicants, how information about these attributes is remembered and how the brand rates on each of the attributes. Applicants, essentially consumers in the labor market, have different perspectives on the benefits and risks of joining a particular organization. Organizations can subdivide their target applicant pool based on the types of benefits that each group perceives the organization to have (i.e., any of the attributes or combination of attributes that comprise the brand). By increasing or decreasing the salience of brand attributes, a company can make its brand more appealing to certain subgroups of job applicants.

Proposition 4: Analyzing competitors' employment offers results in a more effective employment brand. Job applicants have a range of options in choosing an organization as an employer. Among these options are a number of alternatives, including type of organization (e.g., non-profit, government, corporate), industry (e.g., investment banking, consumer product, pharmaceutical) as well as the type of company within a chosen industry (e.g., Pfizer, Merck, Eli Lilly). Given their limited time, energy and cognitive capacity, applicants usually only consider a subset of organizations within this almost endless range of alternatives. This subset, known as a consideration set, is comprised of organizations with which the applicant is already familiar as well as organizations that the applicant has found accidentally or through intentional search (Peter et al., 1987). In the consideration set, awareness of some of the organizations may be activated directly from memory. If an applicant feels that he or she is already aware of the important choice alternatives, the applicant is unlikely to search any further. Therefore, an organization must be included in the consideration set of at least some applicants in order to be successful in its talent attraction efforts. Employment branding is a strategy that increases the likelihood that the organization will be activated in an applicant's memory and included in his or her consideration set.

It is difficult for companies to stake out a unique niche in the marketplace if they do not know what their competitors are offering. Competing employment offers should be analyzed to understand what is being offered to job applicants and how it differs from an organization's own offer. This is especially important because competitors have upgraded their offers so that past differentiators, such as salary and perks, are no longer strong draws – they are the cost of entry into the labor market. The brand will show applicants how the company is different and will communicate the subtle aspects (e.g., culture, values, quality of coworkers) of what it is like to work there.

Competitors must be constantly monitored because branding is not a static process. Other organizations can use their messages to reduce the effect of their competitors' brand value.

Proposition 5: Proper "packaging" is critical to the success of the employment brand. Organizations should view the packaging of their employment brand in the same manner in which they package their products or services. Part of the branding process consists of using a logo, tag line and supporting visuals to reflect the company's message. The packaging should be consistent across marketing materials (e.g., web site, brochures) in order to build and reinforce the brand. An applicant's contact with the company also influences the brand. The brand message should be visible in every point of contact with the applicant – from initial communication to final round interviews. If an applicant sees that the company does not "live its brand" in any of these interactions, the integrity of the company's message will be questioned.

Proposition 6: Proper marketing is critical to the success of the employment brand. Although the attributes of the employment brand account for its success or failure, the quality of the marketing strategy is also critical. At times, the image of the brand is the only relative advantage an organization has to offer. Within a specific industry, the employment brands offered are relatively equal in their functional utility to the applicant (i.e., in terms of being employed and fairly compensated). In order to heighten the differentiation from competitors, a favorable image is created through other elements of the marketing mix. Promotion is commonly used because it informs applicants as to what employment attributes they should be seeking and emphasizes the superiority of its brand in terms of those attributes. A number of distribution tactics can also be employed to gain an advantage over competitors. This can include mailed brochures, the type of magazines in which the organization advertises and the offerings on the company's web site.

Proposition 7: The effectiveness of the employment brand can be measured. If a brand is the aggregate of a company's promise, the job applicant's experience and the company's reputation, then it must be managed as conscientiously as the company's sales figures. By isolating and quantifying the elements of the brand, a company can track its recruiting efforts and strategize accordingly. Tracking studies of potential applicants' attitudes can help a company measure the effectiveness of the brand. By measuring the effect of the brand on its hiring numbers, a company can measure its return on investment. Measurement may include campus image surveys, company web site surveys, charting increases in applicant resumes or increases in hiring numbers. Measurement will also help identify any misperceptions and allow the company to revise the brand in order to correct them.

Proposition 8: Applicants' attitudes can be changed to perceive the employment brand more favorably. The strength of a brand is grounded in its constancy and repetition. Because of this, it is not advisable to frequently change the employment brand. In order to make the brand more effective, strategies can be devised to change applicant attitudes. There are three strategies that can help change attitudes: (a) add a new positive salient belief about the attitude object; (b) increase the strength of an existing positive belief; or (c) increase the evaluation of a strongly held belief (Lutz, 1975).

The most common attitude-change strategy is to add a new salient belief to the existing beliefs that an applicant has about the organization. This may entail adding a new attribute to the brand. Ideally the attribute would be one that tracking studies have shown to be of growing importance to applicants (e.g., work/life balance). Not only does this add another positive dimension to the brand, but it also addresses changing applicant needs. Changing the strength of already salient beliefs is another way that attitudes can be changed. This includes attempting to strengthen beliefs about positive attributes or weaken beliefs about negative attributes. Tracking studies are again useful in identifying the strengths and weaknesses of an organization's employment attributes. The third way to try and change attitudes is by changing the evaluative aspect of an existing, strongly held belief about a salient attribute. This entails linking a more positive, higher-ordered consequence to that attribute. An example is if the perception of entry-level compensation at an organization is viewed somewhat negatively. In the employment brand, the organization could emphasize its focus on development and link it to more rapid advancement in the organization, which leads to faster increases in pay than its competitors. These three strategies can be effective in changing applicants' attitudes to perceive the brand more favorably.

Conclusion

Employment branding benefits both the organization and the individual. By attracting applicants that fit the organization's work environment, a number of other benefits may be realized. Locke (1976) suggests that job satisfaction is related to the extent that one's work environment allows or encourages the attainment of one's values. Research shows support for the relationship between value congruence and job satisfaction and organizational commitment (Meglino, Ravlin & Adkins, 1989). Better person-organization fit should also reduce turnover. In one study, O'Reilly and Chatman (1986) found that people who were attracted to an organization based on value congruence indicated high intentions to stay with the organization. In another study, Chatman (1991) found that a strong fit between organizational values and individuals' values predicted employee satisfaction and intent to stay with the organization a year later. Congruence between individual and organizational values has also been linked to a higher likelihood of organization citizenship behavior (O'Reilly et al., 1986).

Employment branding can function as a recruiting tool that establishes a clear idea in the minds of job applicants as to what an organization is, what it stands for, and what it will provide for them. Just like traditional product marketing, the employment offer must meet applicant preferences, be differentiated from competing offers and have a strong reputation. Branding involves the creation of an indelible impression on job applicants through branded interactions with them. The impression is meant to be lasting and can build loyalty to a particular company when an applicant is evaluating his or her employment offers. A strong employment brand can be key to attracting talent in a competitive labor market. It is a way for companies to stand out from their competitors and can serve as a symbol that attracts immediate attention in the job market. Creating a brand requires a balance of applicant perceptions and wants, current company employment strengths and potential positionings within the competitive labor market. Building a brand now will ensure a stronger labor market position in the future.

Companies spend substantial effort to market their products but not nearly enough on marketing the company to prospective employees. Branding dollars need to be looked at as an investment in the future of the company and in the value of the employment brand. The aspects of the company that affect the brand need to be integrated in order to work together and deliver on the brand's promise to applicants.

The concept of employment branding is still in the development stage. A more complete conceptual framework needs to be constructed in order to understand how the process operates. Companies can then use this strategic tool to distinguish themselves from competitors, polish their employer image and attract a better fit of talent to their organization.

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Evaluation of the Method of Modelling: A Case Study of the Finnish Steel Industry

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The study aims to evaluate the method of modelling. The method seeks to improve professional knowledge and skills of the participating persons. It also aims to develop the work processes, which are modeled. The method has been developed for the purposes of the pulp and paper industry to facilitate the transition from the manual process control to the automation systems. This case study is the first application in the steel industry.

Key words: Evaluation, Industry, Modelling

The paper has two intentions. First, to described the method of modelling as an educational implication to support both specific goal-directed transformative learning focused on work process, and learning in specific contexts, i.e. work places. Second, to evaluate the application of the method in order to identify its effectiveness in the industrial setting.

Problem Statement and Theoretical Framework

The method of modelling has been invented and developed by the researchers of the Finnish Institute of Occupational Health for the purposes of pulp and paper industry, during the transition from the manual process control systems to the automation systems in the late 1980s and early 1990s. In this study, the method is applied in the steel industry for the first time. Even though, the basic structure of the metal industry is quite the same than in the pulp and paper sector, it is necessary to identify the effectiveness of the method in this area. The modelling has been implemented also in the health and service sectors. There are not obvious limitations, why it could not be applied in almost any type of industry, where exists a need to improve the work process and vocational knowledge and skills of the personnel.

Individuals construct the various communication situations and countless observations continuously. These observations become mental models by the thinking process which human beings implement consciously and unconsciously. There are also mental models about the work processes. In order to improve the knowledge and skills of the personnel the mental models have to be shared and formulated to correspond the reality of the work place. The method of modelling of the work process has been developed to advance sharing of the individually constructed mental models among the members of the work unit. The transformation from the manual control systems to the automation systems was the practical need for the method (Bainbridge, 1992; Norman, 1983).

Research Questions

As mentioned in the problem statement section, the paper aims to describe the method of modelling and to evaluate it. There are not research questions for the description part. But it is evident that the description is necessary in building the foundation for the evaluation of the method.

For the evaluation part of the study, there are three specified research questions. First, is the method of modelling effective in improving the conceptual mastery of work among the participants? Second, is the method of modelling effective in improving the work atmosphere among the participating personnel groups? Third, is the method effective in improving the productivity of the production unit in the target organization?

Methodology

The description part of study includes a plain clarification about the method. It builds a foundation for the second

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empirical part emphasizing the evaluation of modelling. The evaluation part includes three methods referring to the research questions.

To answer the first research question, the test of conceptual mastery of work is applied. The participating workers of the target organization answer the paper-and-pencil questionnaire containing basic conceptions of their everyday working life. Study subjects are asked to mark for each proposition, whether it is correct or false. As a result, the test provides a percentage number referring to the share which a person masters of the all crucial concepts of his work. The test is done before and after the modelling is employed. Besides the participating production line of the steel factory, the personnel of the four other production lines answer the test, too, to provide control group setting for the study. The changes in the conceptual mastery between the pre and posttests among five production lines are analyzed through ANOVA procedures (Leppänen, 1993; Nurmi, 1998, 1999).

To answer the second research question, a work atmosphere assessment is applied in the participating production line, as in four other personnel groups. The measurement takes place after the implementation of modelling. The survey tool is "Healthy Organization", which is developed for the purposes of working life in the European Union. Finnish expert organization disseminating this tool is the Finnish Institute of Occupational Health. Differences between five production lines are analyzed through ANOVA procedures.

To answer the third research question, the production figures, the amount of occupational hazards and absenteeism amounts of the five production lines are compared and analyzed through statistical procedures.

The first two analyses are implemented till the end of year 2000. The data for the third section could not be gathered before the end of the year 2001. Because the adequate follow-up time period must be at least one year in the large, slowly changing organizations, such as is the steel factory. There are five production lines in the factory. Each line has approximately 20 workers. Therefore, the respondent group in all is about 100 persons.

Results

Description of the Method of Modelling

The modelling refers to the systematic analysis of the work process. The participators, who are the operators and supervisors themselves, address each major attribute of the work. It includes also theoretical analysis; why certain processes are done as they currently are. The ultimate goal is to develop simultaneously the work process and vocational knowledge and skills of the operators (Leppänen, 1993).

The analyzed elements are the following:

- the goals of the work (what are we intending to accomplish)
- the target of the work (what are we changing, working up)
- the equipment of the work (by which tools are we working up)
- the worker (who does the work)

The mental models and the effective usage of them are the focus points. The modelling aims to expand the mental models and understanding of the work process, and to make the knowledge transfer from the expert workers to the newcomers more effective. The modelling is entirely based on the expertise of the participants, and it is fully focused on the actual work process (Leppänen, 1993; Leppänen et al., 1996).

In the modelling, the participants analyze the work process in terms of products, raw and additional materials, machines and processes, co-operative networks, and critical process phases. Each area is modelled further according to the framework created by the participants. For instance, the product model may contain the following dimensions:

1. List of the products and clients,
2. the purpose of use,
3. special requirements, e.g. quality,
4. exceptions in manufacturing,
5. possible problems in manufacturing,
6. the percentage share of production, and
7. The development needs of the product.

The models are analyzed and progressed in the meetings where representatives of several modelling teams are working together. The external consultant or the supervisor of the participants facilitates the modelling.

Contributions to HRD and Future Challenges

There are several challenges for the method. The roots of the modelling are in the heavy industry, but it can be applied to the various areas of human activity. It has been used already in the service sector, e.g. communal canteens, and in the provisions industry. The latest experiment in one training course was to model the various work processes, products, and raw materials of a professional ice-hockey team.

The challenge is to develop the internal organizational players to be facilitators of learning. The process may be more successful, if the external advisors coordinate the application, but the continuous improvement will not be achieved through this way. The supervisors and other foremen have to face the fact that team-building decreases the needs for the traditional management actions, such as control and decision-making. The modelling is a tool, which change agents can apply in developing the process with the personnel.

The models include development ideas for the products, the processes etc. It takes a tremendous amount of efforts to implement or even just process all of them. For the participants, it is necessary that they see their own chances to influence. They can assimilate the development of the work to be an evident element of their work practice. It would increase the effective usage of the knowledge capacity of the personnel, if the operators continuously plan, how the process can be improved to be more appropriate.

Undoubtedly, there are several ways to develop the method to better meet the various needs of the work place learners and to promote on-the-job learning. Although, the main intention of the method is not in the emancipation or enlightenment of the workers, it includes elements that can be applied in other types of transformative and action learning activities and programs, as well.

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Performance-Level Evaluation Methods Used in Management Development Studies from 1986-2000

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This research begins with Burke and Day's 1986 meta-analysis on the effectiveness of managerial training as its starting point, and uses a Results Assessment System lens to analyze 18 management development studies from 1986-2000 that had performance-level outcomes. Studies included involved managers, leaders, and/or executives. This research was completed to develop an understanding of common evaluation characteristics of performance-level evaluations because the number of management development programs is expected to grow in the next decade.

Keywords: Evaluation; Management Development; Organizational Performance

Evaluation of management development programs is not a new phenomenon. Kirkpatrick's model for evaluation of training and development has been used for forty years to measure training effectiveness. Yet, research indicates that organizations are spending little time evaluating the effectiveness of their management development programs (Sogunro, 1997). It appears that many corporations take for granted that management development efforts will result in improved management skills without valid data to prove the return-on-investment (ROI).

Annual budgets for management development programs are expected to grow throughout the next decade as companies "recognize the shortage of talented managers, the importance of developing bench strength, and the need to widen perspectives in order to compete globally" (Gibler, Carter, & Goldsmith, 2000, p. xii). Organizations are concerned about the management inadequacies of their employees and are committing to education and training that deepen the skills, perspectives, and competencies of their managers. A review of evaluation literature shows that there has been a resurgence of interest in the evaluation of management development programs by HRD professionals (Moller & Mallin, 1996). However, questions remain as to whether existing evaluation models adequately measure the intended outcomes, especially where the goals of management development programs are to enhance organizational performance.

Management development is defined as every form of growth or stage of development in the life cycle that promotes, encourages, and assists the expansion of knowledge and expertise required to optimize one's management potential and performance (Brungardt, 1996). Training evaluation is defined as the systematic collection of data regarding the success of training programs (Goldstein, 1986). Training evaluation occurs when specified outcome measures are conceptually related to intended learning objectives (Kraiger, Ford, & Salas, 1993). Evaluation is normally conducted to determine if training objectives were achieved or the accomplishment of training objectives resulted in enhanced performance of the individual on the job. It enables trainers to continuously monitor their programs and to identify points of intervention for program improvement. In addition, evaluation is becoming more critical as human resource departments are being asked to justify their training programs and compete for limited financial resources.

In an unpublished study by Collins (2000), only 16 out of 54 management development studies from 1986-2000 had organization-level performance (Rummler & Brache, 1995) as the outcome variable. This leads us to wonder why so few studies measure the organizational effectiveness of management development programs. This research analyzes management development interventions with a Results Assessment System lens (Swanson & Holton, 1999) to determine common characteristics among studies evaluating organizational performance improvement efforts. It is done in an effort to provide some theoretical undergirdings for future research to determine underlying reasons organizations are spending so little time evaluating the effectiveness of their management development programs. Hopefully the findings will influence HRD professionals or corporate managers to measure performance at the organization level (Rummler & Brache, 1995), or inspire organizations to evaluate programs when they might not have a tendency to do so.

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Using the Results Assessment System as a HR Tool

The Results Assessment System (Swanson & Holton, 1999) defines outcomes broadly to relate to the results of changes in leadership style in top management, worker satisfaction, work teams, or organizational change (Lynham & Swanson, 1997). The Results Assessment System provides three outcomes levels, each subdivided into two outcome categories. *Performance* level outcomes are subdivided into system or financial and *learning* level outcomes are subdivided into expertise or knowledge. System outcomes are defined as mission-related outputs in form of goods/services, having value to the customer, that are related to the core organizational, work, process, and group or individual contributor to the organization. Financial outcomes measure the conversion of outputs of goods/services attributable to the intervention to money and financial interpretation. Expertise outcomes measure whether human behaviors have effective results and optimal efficiency, acquired through study and experience within a specialized domain. Knowledge outcomes are defined as mental achievement acquired through study and experience. Outcomes with a performance-level result are the focus of this study. *Perception* level outcomes are not a focus of this research.

The assessment of organizational performance requires that mission-related performance outcomes be carefully specified and connected to the mission of the system (Swanson & Holton, 1999). Performance-level outcomes can be at the whole system level (organization), a work process within the system (subsystem), or a work group (team). According to Swanson and Holton (1999), "every intervention should lead to systems outcome(s) at some point" (p. 69). Outcomes are defined as "measures of effectiveness or efficiency relative to core outputs of the system, subsystem, process, or individual" (Swanson & Holton, 1999, p. 69).

Methods

A qualitative research method was used to analyze management development studies from 1986 - 2000 that had performance-level outcomes and involved managers, leaders, and/or executives. Studies that were included were located by conducting computer searches with UNCOVER and ABI Inform, scanning bibliographies, reviewing journal articles and proceedings from the annual conferences for the Society of Organizational and Industrial Psychology and the Academy of Human Resource Development. Also included were the applicable management development studies cited in *The Impact of Leadership* by Clark, Clark, and Campbell (1992). Key words used in the computer search include *evaluation, assessment, outcomes, impact, effectiveness,* and *influence* in combination with the following subject areas: *leadership development, managerial training, management training, management development, executive development, leadership education, leadership, management education,* and *management skills*. This research located 18 management development studies with an organizational impact since Burke and Day's (1986) meta-analysis of the effectiveness of managerial training.

Once studies were located and reviewed, codes were provided for the category of management development intervention, the training content area, and the intended outcome of the management development experience. The management level of the individuals in the sample, the size of the sample, the type of management development intervention, and the instrument(s) used to measure outcomes were also recorded. To validate the coding scheme, each article was reviewed a second time and the coding choice was compared with the first review to ensure similarity. In addition, two doctoral-level human resource development students read four of the most recent studies and independently coded the sample studies. One rater disagreed in only one coding element, but the raters discussed and agreed on the appropriate coding.

Intervention Categories

Leadership development studies include not only formal training, but also a full range of experiences that are suggested by McCauley, Moxley, and Van Velsor (1998) to include mentoring, job assignments, feedback systems, on-the-job experiences, developmental relationships which include exposure to senior executives, and leader-follower relationships. Experiences found in the 18 studies of this analysis fit into intervention four categories:

- *Developmental Relationships:* Experiences in work settings where another individual influences the manager's personal development such as one-on-one mentoring or coaching.
- *Formal Training Programs:* Structured training programs designed to develop the individual manager.
- *Job Assignment:* Assignments to an entire job, as redesigning a system or part of a job, or serving on temporary task forces.

- *Structured Experiences:* Group activities that include goal-directed, live-action, and task-based interactions such as leaderless group discussions, simulations, and targeted exercises.

Training Content Areas

Competency areas featured in the high-performance leadership competency model (Holton & Naquin, 2000) provided a basis for categorizing studies by training content areas. The high-performance leadership competency model was used as it provides the only known definition of management development outcomes that includes "improving performance" as a core dependent variable, or an explicit outcome of leadership. By using this model, content areas more appropriately reflect leadership in today's organizations. Therefore, organizational level (Rummler & Brache, 1995) performance outcomes of team management (Baker, Walsh, & Marjerison, 2000) and strategic leadership competencies (Collins, Lowe, & Arnett, 2000), which enable high-performance leaders to lead strategically in an environment of continuous change, were incorporated into the content areas. Baker et al. (2000) describe team management as the development and leadership of strong, effective organizational teams and the promotion of responsibility for team performance. Strategic leadership includes transforming culture and values of the organization, implementing change, and promoting continuous organizational improvement (Collins et al., 2000).

Results and Discussion

While management development literature from 1986 through 2000 was reviewed, all eighteen (18) studies located for this research occurred in the time span from 1991-1999. No management development studies with performance-level outcomes were found in the literature from 1986-1990.

Methods of Evaluation

Quantitative or Qualitative Method. The measurement of organizational performance often involves both quantitative and qualitative testing at both the learning and the performance level of the Results Assessment System. Both qualitative and quantitative methods are important in analyzing strategic leadership interventions, including how strategic leadership can be developed and used to create cultures in which both people and performance are valued. The ideal assessment for organizational performance incorporates both quantitative and qualitative measurement methods.

Five studies (30%) in this research exhibit a mixture of quantitative and quantitative assessment methods (Koene, Pennings, & Schreuder, 1992; Murphy & Settich, 1992; Riechmann, 1992; Sashkin, Rosenbach, Deal, & Petersen, 1992; Watad & Ospina, 1999). However, the most common method of assessment in this research was quantitative (n = 12, 66%). But, according to Schein (1990), no quantitative method alone can assess culture. Therefore, changes in performance based upon transformational leadership should be evaluated with both qualitative and quantitative methods to produce the best evaluation results.

Six percent, one study (Riechmann, 1992), used qualitative research methods. Through qualitative research we can learn how to help leaders develop and create or change cultures. Qualitative research can help define the important variables and constructs and determine what is worth measuring, at which point it becomes appropriate to turn to quantitative methods of measurement.

Measurement of Informal Training. One study (Uhl-Bien & Graen, 1992) utilized developmental relationships, or strong leader-follower relationships, as the management development intervention. While there are more coaching, action learning, self-development processes, mentoring, and peer-related learning activities (Garavan, Barnicle, & O'Suilleabhain, 1999; McCauley et al., 1998) occurring in organizations than fifteen years ago, these informal training methods are more difficult to measure as they cannot be viewed in an objective manner.

Pretest-Posttest Measurements. Four studies (22%) included in this research utilized pretest-posttest measurements, or random assignment to experimental and control groups (Barling, Weber, & Kelloway, 1996; Moxnes & Eilertsen, 1991; Sashkin et al., 1992; Svyantek & DeShon, 1992). This result is not surprising, as research reported in management development literature most often does not typically have control groups or random assignment processes.

Performance-Level Evaluation

Of the studies reviewed, four (22%) intentionally evaluated the management development experience at both the performance and learning levels (Barling et al., 1992; Howell & Avolio, 1993; Koene et al., 1992; Sashkin et al., 1992). All other studies (n = 14, 78%) completed management development evaluations on performance level data only. Of performance-level evaluations, nine studies (64%) evaluated system performance only, four (29%) evaluated financial performance only, and one (7%) evaluated both system and financial performance (Koene et al., 1992).

An observation from this research is that systems can vary within an organization and so can the outcomes. Six studies (33%) measured performance of business units, teams, or groups, which are considered systems within an organization (Avolio & Howell, 1992; Howell and Avolio, 1993; Penwell, 1992; Riechmann, 1992; Spoth, 1992; Uhl-Bien & Graen, 1992). However, research indicates that there is a problem in linking leadership, in terms of individual behavior and characteristics to a performance-level variable as organizational culture (Sashkin et al., 1992).

Timing of Evaluation

While most management development evaluations are at the learning-level and measure trainees' reactions at the end of the program, analysis of the 18 studies in this research indicates that performance-level measurement of management development programs requires a greater commitment of time than evaluation at learning-levels (Swanson and Holton, 1999). The evaluation process took two or more years in fifty percent of the studies (n=9). Svyantek and DeShon (1992) evaluated the impact of the intervention over a 17-year time span. The evaluative study by Spoth (1992) covers a 14-year time span. It is interesting to note that these two studies involve large corporations, one being Chrysler and the other Fortune 500 companies. Three studies required five years for the completion of the evaluation (Fullagar, 1992; Williams, Greene, & Bergman, 1992), one required four years (Sashkin et al., 1992), and four studies covered a time span of three years (Moxnes & Eilertsen, 1991; Uhl-Bien & Graen, 1992; Watad & Ospina, 1999; Westcott, 1995). Four management development studies in this research required a time span of one to two years (Avolio & Howell, 1992; Barling et al., 1996; Glynn & Slepian, 1992; Howell & Avolio, 1993). Some studies did not record a time frame for the evaluation process (Koene et al., 1992; Lohmann, 1992; Murphy & Settich, 1992; Penwell, 1992; Riechmann, 1992).

Because organizational changes often take many years, the evaluation of organizational performance outcomes also takes a long-term commitment for HRD. Organizations cannot for the most part make a long-term time commitment for evaluation of management development activities. Career changes by HRD professionals, top management, or trainees often slow down the evaluation process or causes the results not to be reported.

In today's environment, work is fluid, organizations are flatter, organizational structures frequently change, and people make more lateral movements (Byham, 1999). In addition, most training likely occurs at the grass roots level, leading to more evaluations at the individual than organizational level (Rummler & Brache, 1995). Also, managers who are responsible for evaluation are less likely to evaluate interventions affecting their own performance, as they perhaps would be fearful of the end result since it applies directly to them.

Instrumentation

Both quantitative and qualitative methods were used to evaluate performance-level outcomes in fourteen studies (78%). Four studies, or 22%, used one instrument to evaluate effectiveness (Glynn & Slepian, 1992; Lohmann, 1992; Riechmann, 1992; Spoth, 1992).

Quantitative methods were found in 17 (94%) studies. Those studies used instruments developed outside of the organization, such as Argyris Learning Model, Repertory Grid Technique, Hofstede construct, Rotter's locus of control, Jackson's personality inventory, Multifactor Leadership Questionnaire (MLQ), Bass' leader charisma scale, Leadership Behavior Questionnaire (LBQ), Leadership Description Questionnaire (LDQ), and Project Leader-member Exchange Scale (PMLX). Quantitative methods measuring group performance often used the SYMLOG (Systematic Multiple Observation of Groups) instrument. The only qualitative study in this research (Riechmann, 1992) used self-reports as the instrumentation method.

Intervention Categories

Job assignments (JA) were the most common interventions in this analysis (n = 9, 50%). Examples of job assignment experiences were transformational leadership changes in ideology, implementation of shared values, or succession of presidents. Formal training programs (FT) were found in five studies (27%) with a strategic emphasis on executive leadership as the primary focus. Of the remaining studies, three studies (17%) incorporated structured experiences (Penwell, 1992; Riechmann, 1992; Westcott, 1995), and one study (5%) had developmental relationships as the intervention (Uhl-Bien & Graen, 1992).

Transformational leadership, encompassed in this study in the job assignment (JA) intervention category, functionally changes the strategic direction at the organizational level. According to Friedman (2000), "management always matters, but in this more complex and fast-paced system, management and strategic vision matters a lot more" (p. 231). Therefore, it is important to align the goals for management development programs with the strategic vision of the organization, and to train managers in their new roles in strategic management.

Content Areas

Twelve studies (66%) focused on strategic leadership as the primary the content area for interventions. This is not surprising as the occurrence of strategic leadership interventions can be attributed to the need of organizations to change to meet the demands of a competitive environment as a result of globalization.

Recommendations for Future Research

HRD must make huge strides in the development of performance-level evaluation activities (Swanson & Holton, 1999), especially those that test long-term impact of the intervention on the organization. Some topics that should be researched further are described in the following paragraphs.

HRD professionals must take the lead in addressing the lack of performance-level evaluation methods. A limited number of management development programs with organizational outcomes are reported in the literature. Obviously, standard evaluation methods are not enough for organizations to measure organizational-level performance improvement (Rummler & Brache, 1995). Because organizations are facing a multitude of outcome-based demands on their time and resources, the development of an evaluation instrument should not be left up to the management of the organization. HRD should take the lead in combining evaluation theory with performance-based management development theory to create the appropriate system for measurement of organizational-level performance improvement. Many organizations utilize individual learning outcomes to reflect performance at the organizational level. However, there is no research that explicitly justifies that learning at the individual level translates to organizational performance. Further research must be done on the outcomes of management development programs at the organizational level (Rummler & Brache, 1995).

HRD must take the initiative to link management development programs to organizational strategy. Management development programs have received criticism in recent years. Sometimes management training programs fail because they have no connection to real life in the company (Berry, 1990; Carlisle & Henrie, 1993) or fail to add value to corporate strategy. Traditionally training and development systems are relegated to narrowly defined support roles, where individuals are trained around current job-based deficiencies or predicted knowledge and skill needs (Olian, Durham, Kristoff, Brown, Pierce, & Kunder, 1998). For results to occur, the intervention must be linked with organizational goals and have utility or payoff to the organization. HRD should take the lead by strategically aligning training and development systems that advance and sustain the organization's competitive position in its market.

HRD must become the learning centers for global organizations. An inconsistency occurs when HR practitioners, operating in the same knowledge-based paradigm, are required to enable radical changes in organizations in response to rapid changes in business environments (Beddowes, 1994). HRD practitioners must take the lead with management development interventions in global organizations. However many HRD practitioners must change the basic way of doing their business, increase their knowledge about globalization, and change their perspectives to function in global organizations. HRD should be the learning centers for global organizations. As a result, HRD professionals must change from the Kirkpatrick (1996) reaction paradigm of evaluation to one that measures effectiveness of strategic development initiatives. Practitioners who use the four-level approach alone are quite likely to arrive at erroneous conclusions about their training programs in global organizations. Therefore, it is the responsibility of HRD to create and use a model that has the appropriate constructs, which can be used as a diagnostic tool for determining critical influences that need to be measured along with global outcomes.

Conclusion

The evaluation task is daunting. Research reported in the literature on the effectiveness of management development programs is sparse, partially because of ineffective performance-level evaluation methods. However, high-performance leadership organizations always assess the impact of their management development processes (Collins et al., 2000; Fulmer & Wagner, 1999) and use that gap analysis to make improvements. Program evaluations provide the data to generate buy-in and to focus on the current mission-related objectives.

HRD professionals should develop performance-level evaluation methods so that organizations develop the bench strength to compete globally. However, the challenge is huge for HRD because the type and intensity of the evaluation process depends on the objectives of the management development effort and the organization's culture. Therefore, evaluation methods must be specific, but yet broad enough, to satisfy the evaluation needs of all organizations. Meanwhile, refined evaluation methods are needed to conduct more empirical research in the future on performance-level outcomes of management development programs.

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Note: An asterisk denotes management development studies that are a part of the research. References for the 18 management development studies included in this analysis can be obtained by contacting the author.

Redefining Performance: Productivity and Return on Investment in Physical Therapy

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In the field of physical therapy, the measurement of performance has been predominantly accomplished through productivity calculations. Return on investment (ROI) has been shown as an effective tool for evaluating performance in other businesses. Without a practical model for determining the ROI in this service-oriented healthcare field, managers must create useful tools to accurately measure human performance. This theoretical paper begins the conceptual analysis of such an instrument to measure ROI in physical therapy practice.

Keywords: Return on Investment, Productivity, Performance

Recent shifts in healthcare reimbursement have caused managers and employees to redefine their understanding of performance. Many workers are experiencing longer shifts and increased workload to meet the job demands of their company. Using Swanson's (1999) definition of performance as the "valued productive output of a system in the form of goods and services" (p. 5), traditional measures for evaluating the actions of employees and programs in healthcare may no longer be appropriate. With the diverse dynamics of the modern workforce, each profession must discover methods to appropriately measure performance by building models or tools that focus on its unique role (Holton, 1999). Productivity measures have been used extensively in healthcare to measure the performance of individuals, and yet, this concept has been poorly defined. Productivity may, as Kaplan and Norton (1996) suggest, inadequately reflect the accomplishments of the employee in relation to the desired outcomes. This calculation may be inaccurate, misleading, and unrealistic in today's healthcare environment.

The profession of physical therapy (PT) is a healthcare sector with particularly heavy reliance on productivity as a performance measure. Productivity has been widely used in PT practice to measure the performance and potential revenue from an individual, group, and/or a clinical program (e.g. Bohannon, 1987, 1984; Dupont, Gauthier-Gagnon, Roy, & Lamoureux, 1997), and to determine the compensation and rewards for clinicians and therapy departments (Nosse, Friberg, & Kovacek, 1999). However, few studies have related the concept of productivity to the financial results and measures of human performance.

The American Physical Therapy Association (APTA) has developed the Guide to Physical Therapist Practice, which serves as a tool to outline and explain the abilities, capabilities, and skills of the members of the PT profession (1999). In this document, the performance of a physical therapist is included in five distinct roles: administration, education, critical inquiry (research), consultation, and patient/client management (practitioner). These roles are new to many therapists and expand the career opportunities and educational requirements of the field. These roles become evident through the documentation of outcomes for administration, education of clients, problem-solving approaches from research, consultation with other practitioners, and management of client caseloads. However, a model does not currently exist to effectively evaluate the employee's performance within these roles.

One such instrument for determining the outcomes and effectiveness of performance and programs is return on investment (ROI). ROI is often used in the field of human resource development (HRD) to measure the outcome of a program or training. ROI has been defined as the culmination of all activities of a company (Rachlin, 1997), and as both a management and a financial tool for measuring performance and company investments (Friedlob & Plewa, 1996). ROI has also been shown as a valid tool for measuring the performance of employees (Fitz-enz, 2000). By calculating the ROI of performance, PT managers or supervisors can determine both the benefits and costs of their employees and of the company's clinical programs.

Research Problem

This paper is intended to assist PT managers in identifying areas of opportunity for individual, team, and department/program growth within the five roles of the physical therapist. With an emphasis to increase employee productivity in the clinical setting, a need exists in the PT profession to relate productivity to performance, and to

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identify factors, other than productivity, that can be investigated to measure ROI. The measurement of performance in terms of ROI may yield different results than the traditional calculation of productivity. If therapists demonstrate the ability to perform the five essential roles, is productivity the most valuable indicator of performance and potential revenue? The purpose of this paper is to begin the conceptual analysis of a model that may lead to a useful instrument, which evaluates performance in PT clinical practice. This paper investigates productivity and ROI models from multi-disciplinary sources and attempts to link related concepts and methods from the business and management field to the practice of PT.

Theoretical Framework

The theoretical framework for this paper concerns the proposal of a conceptual analysis for the development of a model that serves to measure the return on investment of a healthcare delivery system.

HRD and Measuring Performance

Performance has often been measured by conducting performance appraisals and comparing performance to benchmarks (DeSimone & Harris, 1998). Determining an all-encompassing definition of performance in the workplace has been a difficult task for HRD. Performance may be measured in terms of individual, process, and organizational perspectives (Rummler and Brache, 1992), or in relation to quantity, time, and quality (Swanson, 1999). The relationship between HRD and performance is based in part on their focus of measuring output in order to identify areas for improvement. The measurement of performance allows the organization to evaluate the efficiency and the effectiveness of its efforts (Bates, 1999).

ROI represents a value that compares program costs to benefits and has been used as a benchmark for increasing profits, establishing objectives, and measuring results in businesses worldwide (Rachlin, 1997). It has been used extensively to reduce the factors of intuition and judgment and to measure the performance of management and employees (Friedlob & Plewa, 1996). In HRD, Phillips (1996) discussed the role of ROI in training evaluation to measure the monetary benefits in relation to the training costs. Phillips (1998) later emphasized the need to test and measure performance to ensure acquisition of skill and knowledge. By shifting the ROI model from human resources and management to human performance, managers may more precisely assess the knowledge, skills, and abilities of their employees.

Background

Characteristics of Physical Therapy

PT involves the preservation, development, and restoration of physical function (APTA, 1999). Single therapy treatments may last from 15 minutes to over 2 hours per patient. The billing standards also vary depending on the payer for the service. In some cases, there are specific charges for given treatments. For example, if a client requires a computerized strength test, there may be a set fee for this action. PT may also be billed in time increments. Typically, therapy is billed to a third party payer in units. One unit is equivalent to 15 minutes of therapy. In 1997, the Healthcare Financing Administration implemented the Balanced Budget Act, which imposed the Prospective Payment System (PPS), which modified the billing system and set dollar amounts for certain treatments and group activities (Department of Health an Human Services, 1998). PT departments have consequently undergone changes in their methods of reimbursement. As managers seek to increase reimbursement, clinicians may be requested to increase their levels of productivity. These changes in reimbursement, as well as staffing changes in the clinic, indicate that productivity may not be the most accurate indicator of performance and positive financial results.

PPS requires that therapists calculate the number of minutes of therapy for a patient on a weekly basis to determine the dollar reimbursement. To calculate an individual's productivity, the clinician would divide the number of minutes billed during the day by the number of minutes he or she was able to provide treatment. Clinicians may choose to treat clients in groups of two or more depending upon the clinical program and the insurance stipulations. Clinics may require the therapist to average a predetermined level of productivity in order to remain in good standing with the company or to receive bonuses and promotions. This formula does not, however, account for the changes in reimbursement structure or the actual revenue or outcomes from PT services.

Productivity is commonly used to measure performance in PT for many reasons. It is a relatively quick and simple figure to calculate, as opposed to the concepts of service and quality, or "soft" data as described by Phillips

(1998), and it provides a percentage to establish benchmarks or compare employees. The debate concerning the effectiveness of measuring productivity may stem from the definition and usage of the term itself.

Productivity has been defined as the number of patients treated divided by the number of treatments (Dupont et al., 1997), and as the amount of time spent conducting patient care (Ladyshewsky, 1995; Ladyshewsky, Bird, & Finney, 1994). However, these examples only deliver a partial view of human performance because only one variable is considered. Investigating other possible factors that influence productivity would offer a more comprehensive measure of performance (Risher & Fay, 1995). Nosse et al. (2000) have defined productivity as the relationship between the values of the resources used --or input-- and the value of what is produced --or output. The authors were identifying organizational processes, but this definition parallels Swanson's concept of performance (1999) by investigating values in terms of dollars, outcomes, and company growth, and initiating therapy managers to expand their definition for productivity.

Potential of ROI for Measuring Performance in PT

Numerous formulas for ROI in healthcare have been proposed (e.g. Japsen, 1997; Rosenstein, 1999). However, these models measure the use of equipment and clinical decisions and not human performance factors. Although ROI models have not been proposed in the PT clinical setting to measure individual, group, and program performance, a financial model for clinical education programs has been presented (Lopopolo, 1984). Lopopolo's model provides useful insight into the development of a framework for discussing ROI and its relation to productivity by measuring the costs for operating a department in terms of capital and business expenses, rather than human performance. Ladyshewsky and Barrie (1996) have also developed a tool to audit costs and benefits in clinical education. Components of this model may be useful in developing ROI when calculating program costs. Although group performance and supervision has not been studied in the clinical setting, group productivity in the clinical education of students has been shown to increase with appropriate supervision (Dupont et al, 1997). The relationship between productivity and ROI may provide relevant insight to collaborative models being implemented in clinical practice (Zavadak, Dolnack, Polich, & Van Volkenburg, 1995).

The identification of other factors than productivity in developing a model is critical to measuring the performance of the five roles. One should be able to evaluate the learned skills of administration and education, the manual and "hands-on" skills of the clinician, and the interpretive and research abilities of the consultant and critical inquirer. Traditionally, PT has focused ROI on the administrative function, even though therapists are trained to perform in all five roles. To conceptually analyze performance at these five domains, an understanding of the present method of measurement is needed. Then, one can begin to develop a new approach to calculating ROI in the PT profession.

Exploring a ROI Model for PT

The determination of ROI for this paper consists of the calculation of direct and indirect costs, development costs, overhead costs, and compensation and benefits for PT staff, and for calculating the revenue generated in clinical practice. Since healthcare often gains economic benefits from cost reduction, instead of increasing revenue, therapy managers may be able to increase ROI by finding ways to decrease the costs to the department without any change in productivity. Managers need to be aware of these potential cost-saving measures in order to adequately evaluate the performance of the staff.

As in business and HRD, the essential factors that directly affect the ROI for the clinic include productivity, promotability, transferability, and retainability. These factors have been shown to highly correlate with increased ROI (Fitz-enz, 2000; Rachlin, 1997). The factor of *promotability* captures the potential of an employee to advance in his or her job role. This advancement may be a part of an individual's career development (Greenhaus, 1987). *Transferability* is the ability of the employee to learn new or different job skills, or improve his or her knowledge base. This component may be evaluated by managers to better understand the learning component of performance for the employee. Learning is associated with a "change" in the behavior, cognition, or affect of the employee that is a result of acquiring a new skill or knowledge (DeSimone & Harris, 1998). *Retainability* refers to the organization's ability to retain an employee's services. Employee retention may save an organization time and money by reducing training costs, decreasing the hiring of temporary workers, and increasing job satisfaction ratings (Fitz-enz, 2000). The extent to which individuals, groups, and/or programs have an effect on ROI depends upon the appropriate evaluation technique as well as appropriate self-assessment data for these factors.

A traditional belief system in the PT profession is that increased productivity will lead to promotion, retention, and job transfer (Bohanon 1987, 1984; Domenech et al., 1983). By meeting or exceeding expectations in productivity, one can move from the patient/client manager role to administration or consulting. Increased productivity may also warrant job recognition, which may lead to the transfer to other roles. If productivity is linked to compensation and benefits, employee retention may also be improved. This traditional system emphasizes one determinant--productivity--and its role in performance (see Figure 1). If productivity is not the most accurate indicator of performance, and ROI involves more measures than productivity, the use of productivity as the sole indicator of performance may be misleading.

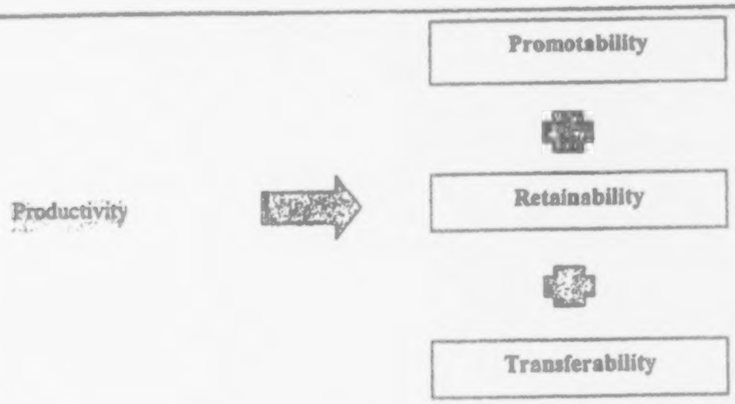

Figure 1. Traditional Belief System for Productivity. Productivity expectations influence job promotions, employee retention, and the potential transfer of knowledge and careers.

Findings and Results

A link between ROI and productivity in physical therapy may be made by incorporating productivity, transferability, and retainability equally into the ROI model as shown in Figure 2. These three essential factors are measured to evaluate performance and ultimately, the opportunity for promotion to other roles of the physical therapist. If ROI is viewed by employees and managers as a more accurate measure of performance, then these related concepts could positively influence productivity, improve the transfer of learning, and retain valuable employees. For example, if one can relate increased production with retention or the opportunity for job transfer, then he or she may increase the probability of job promotion. By calculating the productivity measurements for the individual, group, and program, accurate comparisons among clinicians can be made. A manager can divide the anticipated revenue by the sum of the compensation, benefits, training, marketing, and program development costs to yield a more accurate view of ROI for the practice than the traditional measure of productivity alone.

PT managers should be able to adequately evaluate these ROI factors in order to lead to an effective model. A therapist's ability to transfer to different therapy environments involves the acquisition of new skills and/or knowledge. This attainment may be measured through the employee's attendance in continuing education courses or the development of research for the profession. Transfer may include the placement of the employee in a different setting based upon learned abilities or skills. Learning opportunities can also be obtained through continuing education or on-the-job training and may add to the existing proficiencies of the employee. The effects of retention may be measured through leadership, responsibility, and management skills, as well as time spent with the organization. Productivity involves the measurement of manual skills as well as time management abilities. By appropriately assessing each factor, one may determine which one of the five roles best describes the individual. Table 1 identifies potential relationships between the five essential roles of the therapist with examples of possible measurement tools for each ROI factor.

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Table 1. Measurement of ROI in PT Practice in Relation to Job Roles

Factors	Measurement	Role (examples)
Transferability (learning)		
	Continuing education	Education/ Pt/Client Mgmt.
	Research	Critical Inquiry
	Program development	Consultant/Admin
	Knowledge and skill acquisition	Pt/Client Mgmt./ Education
Retainability (development)		
	Management	Administration/ Pt/Client Mgmt.
	Leadership	Admin/Consultant
	Time in service to organization	Pt/Client Mgmt./ Administration
Productivity (skill)		
	Manual skills (psychomotor)	Education/Consultant/ Pt/Client Mgmt.

Conclusions

Healthcare practices are often unaware of the potential opportunities to improve and measure human performance in the workplace. Physical therapists were once trained to become educators of the patients, managers of their caseloads, and clinicians that are efficient in their clinical skills. Now, the roles have expanded and the job requirements have increased. Even though these domains of the therapist may be diverse, only the efficiency of the practice is routinely measured. This concept of performance remains new and difficult to explain for many professionals (Swanson, 1999).

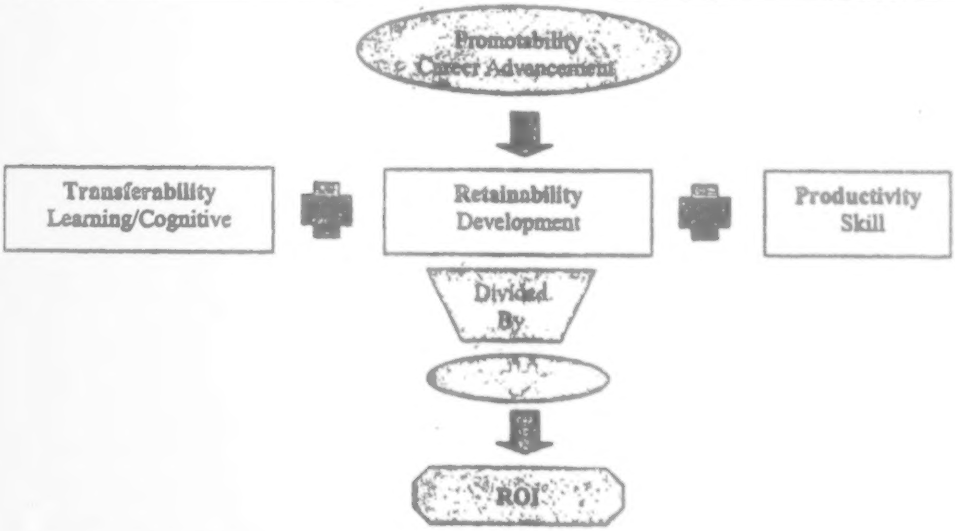

Figure 2. Model for ROI in PT Practice. Promotion is dependent upon transfer of learning, job retention, and productivity. Dividing by the costs associated with human performance would yield the return on investment in the physical therapy clinical environment.

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Accurately measuring the ROI of human performance may be one of the most difficult tasks facing the PT profession today. The role of the HRD professional has been stated to solve individual and organizational problems by enhancing performance in multiple dimensions and demonstrating value to the learner (Ruona, 2000). Watkins (2000) stated that HRD is about making a difference in people's lives and being a helping profession. Similarly, PT is founded on a belief of providing help to others in order to improve their physical performance. By designing a tool to assist PT managers to accurately evaluate the performance of their employees, HRD professionals can assist in fostering this meaningful opportunity for learning and change.

Contribution to New Knowledge in HRD

As healthcare continues to evolve and the financial reimbursement changes, new methods for managing patients need to be identified. While many of the administrative functions of a PT clinic undergo major transitions, patients continue to require the high level of skill that physical therapists are trained to provide. Over the past few decades, therapists have been challenged by the need to increase productivity without a reduction in service to the patients. Giving extra time to one patient often means another patient may suffer from the lack of physical therapy intervention. Even though therapists have had to become jugglers of time and masters of scheduling, they are still measured by archaic formulas that only address one component of their multidimensional talents. By addressing attention to other dimensions, managers and administrators may gain insight to these human elements of performance and realize the potential growth of ROI in their clinical practices.

Although this conceptual analysis is intended to explore productivity's role in ROI and to provide a practical tool for therapists, it is not intended to provide an all-encompassing measurement device for the profession to use in all practice and educational settings. ROI, rather than productivity, may serve to provide a more accurate indicator of the performance of staff and programs in PT clinical departments. Therefore, future research is required to implement a model in the clinical setting to evaluate the performance of both the individual and organizational components of physical therapy. These findings can then be compared to prior productivity calculations to produce an accurate determinant of performance for the profession.

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Indigenizing Knowledge Transfer

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Following an exploration of examples within human resource development (HRD) in which ethnocentric perspectives predominate, numerous suggestions, based primarily on the author's observations and experiences, and supported with selected literature, are made for developing a global perspective. Without such a perspective, efforts to transfer knowledge, within both academia and corporate HRD settings, are almost certain to fail.

Keywords: Knowledge Transfer, Indigenous Knowledge, International HRD

> THEODOTUS: Caesar, you are a stranger here, and not conversant with our laws. The kings and queens of Egypt may not marry except with their own royal blood. Ptolemy and Cleopatra are born king and consort just as they are born brother and sister.
> BRITANNUS (shocked) Caesar: this is not proper.
> THEODOTUS (outraged) How!
> CAESAR (recovering his self-possession) Pardon him, Theodotus: he is a barbarian, and thinks that the customs of his tribe and island are the laws of nature.
> (George Bernard Shaw's *Caesar and Cleopatra*, Act II)

The faculty of the University of Minnesota have defined Human Resource Development (HRD) as "a process of developing and/or unleashing human expertise through organization development and personnel training and development for the purpose of improving performance (Swanson, 1995, p. 208). This definition reflects the individualistic and masculine characteristics of the United States consistent with the findings of Hofstede (1991) and is similar to the definitions that have emerged in the U.S. (Weinberger, 1998). Interestingly, though not labeled as U.S. based, all of Weinberger's definitional references were to U.S. literature.

However, in a recent paper, McLean and McLean (2000) explored definitions in a world-wide context and found that there were many variants to this definition. Definitions varied according to historical, economic, cultural, and political contexts. For example, human resource development is not differentiated from human resources in France (Hillion & McLean, 1997) or the People's Republic of China (Yan & McLean, 1998). The recent economic crises in Asia have thrust HRD into a national role in countries such as the Republic of Korea (Kwon, personal correspondence, Sept. 29, 1998) and Thailand (Virakul, Personal correspondence, June 19, 1998). HRD in Thailand also has a strong emphasis on community development (Na Chiangmai, 1998). Emerging market economies, such as in Russia (Ardishvili, 1998), and religion, as in India (Rao, 1996), also influence a country's perceptions of HRD. McLean and McLean's (2000) review also identified several definitions that appeared to be very similar to those found in the U.S. and concluded that there were three possible explanations for this:

- By far the most extensive literature on HRD that has been identified in this research is out of the US and the UK, with India emerging as having an extensive literature, though it is not yet readily available or recognized outside of Asia. This problem was illustrated in the writing of this paper. One of the reviewers, presumably from the UK, provided what appeared to be an excellent set of resources, with suggestions that they be incorporated into the paper. Only one of the references, however, was available to the author in the time available to do a revision. And many of those resources were in English, but were published in the UK and in the Netherlands.
- The predominance of US-based or modified definitions may, in addition to the predominance of the literature, be explained by the fact that many international students are being educated about HRD in the US. This exposure to US definitions has influenced how HRD is viewed in other countries. This process is not dissimilar to the emergence of US popular culture around the world.
- Professional organizations also seem to play an important role in the predominant influence of certain cultures. For example, the McLagan and Suhadolnik (1989) study, which has been so influential, was

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funded and disseminated by the American Society for Training and Development (ASTD). Much of the English language scholarly literature in HRD is sponsored by US and UK professional organizations (e.g., Academy of Human Resource Development, Society for Industrial and Organizational Psychology, International Society for Performance Improvement, The Organization Development Institute, University Forum for HRD), while the Academy of Human Resource Development (India) is emerging as a significant source of literature in India.

Purpose of the Paper

Each of these explanations has to do with knowledge transfer. The transfer, however, did not take into account the culture or context of the receiving country, but, rather, definitions emerged that were appropriate for a dominant culture. The purpose of this paper, then, is to explore the content and the process for knowledge transfer that takes into account the context of the receiving culture. It may also be possible to create knowledge that incorporates components from many cultures as knowledge is transferred in a mutual context, rather than in a one-way transfer.

In the above instance, for example, McLean and McLean (2000) proposed a definition for HRD that might be acceptable across several cultures:

> Human Resource Development is any process or activity that, either initially or over the long-term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity.

Attempts to find one approach to fit all must be made with caution. Here are two examples from the HRD field. A client requested my assistance in helping to implement world-wide an individual employee incentive program for making process improvement suggestions. In spite of my caution that many cultures were team or group oriented rather than individually oriented, the client moved forward with the program unmodified. When the program was implemented in Thailand, near disaster occurred as the workers refused to participate unless the team were rewarded instead of the individual. And what was perhaps even more egregious was that the rewards made available for making suggestions that improved productivity considerably were very unequal, ranging from a truck in the U.S., as the top reward, to a jacket as the top reward in Mexico. In another obvious example, a major multinational corporation decided that it would become global by requiring that all of their facilities, regardless of country, use the same accounting package, without regard to the country's currency, labor laws, accounting practices, and so forth. Obviously, the project was doomed to failure.

While the field of HRD (and education) will probably always have to live with a certain degree of ambiguity (Mankin, in press; McLean, 2000), this definition does incorporate many of the components of definitions found across the global contexts.

Nature of the Problem

In the broader economic and business contexts, there has been much debate regarding the applicability of Western management theory and practices to the economic progress of developing countries. Both transnational corporations and non-government organizations often make the ethnocentric assumption that what works in the West is best for management throughout the world. Yet O'Toole (1985, p. 54) correctly observed that "there is no 'right way' to manage all companies at all times."

Many management principles and theories that have emerged from practices found, and studies conducted, primarily in the United States, or, certainly, in developed economies, find themselves being applied in developing economies with little to no modification. Historically, management theory and practices in developing countries have been heavily influenced by developed countries--the textbooks used, much of the research conducted, the instructional support materials used, and the training of many of their faculty. Yet O'Toole (1985, p. 17) observed that a corporation's needs are defined, at least in part, by "the society of which it is a part." So, too, should the education of managers reflect the society in which they are to operate. That suggests, therefore, that it may not be possible to take a set of principles developed in one cultural setting (e.g., the United States) and transfer it wholesale to another cultural setting (e.g., Bangladesh).

Forti (1981) underscored the problem:

> Few single approaches could be applied internationally with any hope of success, both because the nature of man's (sic.) basic needs is perceived differently in different countries and because the solutions appropriate to one country would be unsuitable in another with a different sociocultural and ecological setting. (p. 2)

Laurent (1986) conducted a study of participants drawn from managers participating in executive development programs at INSEAD, who were from a wide variety of companies and countries. According to the study, the largest indicator of management assumptions was nationality, which had three times more influence than any other characteristic. Laurent concluded that Management (with a capital M) does not exist and that organizations should not ignore societal and cultural contexts.

This conclusion is consistent with that drawn by Trompenaars (1994):

> Rather than there being one best way of organizing, there are several ways, some very much more culturally appropriate and effective than others, but all of them giving international managers additional options in their repertoires if they are willing and able to clarify the reactions of foreign cultures. (p. 21)

Many developing countries are struggling to develop an indigenous understanding of management for their own cultural environment. In India, for example, Chakraborty wrote several articles (e.g., 1986) and texts (e.g., 1985) underscoring the impact that Yoga and the Vendantic tradition should have on Indian management theory. Sheth (1986) wrote that there are two schools of thought among Indian management scholars:

> (1) those who regard western models...as relevant to all countries, although they recognize the need for minor cultural adaptations, and (2) those who have significant doubts about the applicability of the western concepts and models to the Indian environment and, therefore, are in search of alternative approaches relevant to the socioeconomic and cultural spectrum of contemporary India. Scholars in the second category are likely to be aware of the Indian philosophical and spiritual traditions and believe that these traditions contain models of effective living and working in modern India. (p. 108)

Some Possible Solutions

What is called for is a process of knowledge transfer that honors the culture to which the knowledge is being transferred. This brings *indigenization* into play. According to the dictionary, indigenization refers to making a process "innate or inherent" as it "exists…naturally in a region or country" (Neufeldt & Guralnik, 1988, p. 687).

Although not much research is found regarding the importance of indigenized materials for knowledge transfer, it certainly appears that one solution to knowledge transfer is to develop materials that are consistent with the culture to which they are being transferred. During a major World Bank project in Bangladesh, the Business Management Education and Training Project, it was found that instruction in the three major universities' faculties of commerce (Dhaka, Rajshahi, and Chittagong), the Institute of Business Administration, and the Bangladesh Management Development Centre, were based on theories learned by faculty in the U.S., U.K., and Australia, or Russia. The textbooks used were primarily from the U.S., even though many of the students could not read English, and the economy in Bangladesh at that time was a controlled economy, with most industry nationalized. As a result of the project, five indigenous textbooks were developed, three books of case studies and two books of research were published (in English and Bengali) for use in the country's management development activities (McLean, 1986). In addition to the content of the materials, such materials should also be sensitive to the country's language, cultural norms, political and economic systems, and so on.

Attention must also be given to the level of technology required. There are many stories of U.S. based organizations developing sophisticated web-based materials that cannot be accessed or downloaded in other countries. For example, fire walls are widely used in Saudi Arabia to prohibit the importation of information that is considered undesirable. Therefore, web-based threaded discussions, a very useful tool for knowledge transfer among many participants, cannot be used. However, creative use of e-mail can overcome this deficiency and, while slightly less effective, can still be useful for sharing in widespread dialogue.

Another major factor in the indigenization of knowledge transfer is extensive knowledge of cultures, and the specific culture to which the knowledge is to be transferred, on the part of the transferor. The last time I counted, we have students majoring in HRD at the University of Minnesota from 36 countries. That means, then, that HRD faculty must be widely traveled and knowledgeable of many cultures if they are to include appropriate modifications and observations during class. With such attentiveness, not only will students be better prepared to modify knowledge appropriately for their home culture, but all students will become more sensitized to all cultures, and faculty may well learn about theories and concepts that could be appropriate, with modification, in cultures other than those from which they emerged..

As Latimer (1999) said, "Transferring knowledge is particularly challenging when it involves bridging differences in instructional and learning styles from one culture to another" (p. 50). Knowledge of multiple cultures will enable faculty to honor both learning and cultural styles. Faculty will understand the reluctance of students from Korea to participate in heated discussion or call the faculty member by his or her first name. Faculty will appreciate the difficulty some students have in providing feedback to peers or to the faculty member. They will understand why some students prefer lecture while others prefer interactive and experiential activities. By modeling cultural sensitivity and by presenting material in the way in which it is most easily received, it is probable that the knowledge will be transferred more effectively and in a way that is more applicable for the student and for the student's context.

Another responsibility that we have as university faculty is to help people understand their own culture. I have found that this is often not the case. In a USAID project in Poland (McLean & Schaeffer, 1992), participants in a marketing workshop often expressed negative comments about Polish products. As a means of teaching participants how to use blind taste tests in marketing research, I set up a number of tests using Polish products for which negative comments had been made with the parallel products from countries they looked to for excellence. So we tested Polish cola against Coca-Cola, Polish butter against Danish butter, Polish chocolate against Belgian chocolate, and so on. To the great surprise and pride of the workshop participants, they actually chose the Polish product over the foreign product over half the time. They learned something about their own culture in the process. And they also learned that "the other" isn't always the best.

Another way in which faculty can assist in the indigenization process is through mentoring in research projects. I have found that most of my international students are highly motivated to find out more about how HRD impacts their country. It has been relatively easy to encourage students to partner with me in conducting research in their home country, and I almost always give them first author status as a way of encouraging them to continue to do their research. You will see several of these in the reference list of this paper. Most of these students are continuing an active research life, and I find myself continuing to do international research in partnership with these former students who are now colleagues.

Indigenization can also occur by interesting others in doing research in a different cultural context. Each year, the HRD program leads a class on an international field trip. Each student in the course selects an aspect of HRD that he or she would like to know more about in that context. This year, our trip was to Thailand. Invariably, students learn a great deal about the theory and practice of HRD in that country, and often this information is even "new" to those in that country. From this year's trip, at least four students have been able to develop their papers and will be presenting them in Costa Rica at the annual conference of the International Management Development Association (Brown, 2000; Kowske, 2000; Lundblad, 2000; McLean, L. D., 2000). There is a good possibility that they will also be published in refereed journals. Not only will this forward our knowledge and understanding about Costa Rica, but it will also expand these students' understanding of international HRD issues.

Another way of partnering in the knowledge transfer process to insure the emergence of indigenous theory and practice is to learn to ask rather than assume. In 1997, I was asked to work with the Personnel Center of Liaoning Province, Shenyang, People's Republic of China. If I had operated on my understanding of how personnel functions exist in the United States, I would have made many errors, and my recommendations for modernizing their procedures would have been totally useless. By asking questions and understanding as best I could how the Center operated within the PRC context, I was able to make much better contributions than if I had simply transferred "best practices" from the U.S. context, which is what had actually been requested.

As stated in the Problem Statement section, ambiguity is a factor of life that must be accepted and, I have suggested often, celebrated. As a citizen of both Canada and the U.S., I appreciate the ambiguity that comes from striving to be a world citizen. The greater the comfort the knowledge transferor has with ambiguity, the less likely that person is to insist on a one right way approach and the more likely to affirm multiple cultures and the need for indigenization. As Tillich (1963) stated, "Life at every moment is ambiguous" (p. 32). Thus, selecting individuals to do the knowledge transfer who are comfortable with ambiguity will support the indigenization of knowledge transfer.

Latimer (1999) discovered that "knowledge transfer works best when the recipient is the driver of the transfer, and the sender's role is that of supporter, coach, and supplier of key resources" (p. 51). Any attempt to impose transfer is likely to meet with failure. A widely used approach to encouraging participation in training is through a train-the-trainer approach, so that the trainers are from the same cultural background as those receiving the knowledge (Sullivan, 1995).

Finally, knowledge transfer is most likely to be indigenous when the exchange is mutual. When the transfer is seen as one way only, it is less likely that attention will be paid to making the material indigenous. For the exchange to be mutual, conversation and dialogue must take place, encouraging broad understanding of the needs of each party. An on-the-job or in-country approach is most likely to encourage this mutuality, if both parties are committed to it. I learn much more about a culture when I am immersed in it, for example, than I do simply by reading about it.

Conclusion

As Swanson (1990) rightly observed, "The global economy does not allow cultural differences to justify poor performances...[nor does it] allow managers to profit as easily from their own below-average performances" (p. 106). Much more research is needed in this area of indigenizing knowledge transfer. The focus of this paper has been on cross-cultural HRD. Many questions remain to be answered. Which management philosophies or training methods are most effective, why are they effective, and where are they effective? Which elements of cultural differences ought to be the greatest concern? Even without answers to these questions, it is clear that, if developing countries hope to compete in global markets, or even in their own markets, they will need an indigenous management theory and subsequent practices in order to meet the demands of their business environment. Further, as university faculty, we have obligations and responsibilities to insure, so far as possible, that the knowledge that we transfer into our cultures will meet the needs of the cultures represented among our stakeholder groups, whether students, other professionals, or clients.

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How to Develop Human Resources: Technical Rationality or Social Moral Responsibility? A Comparison of Western and Chinese Human Resource Theory and Practice

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This paper proposes a theoretical framework of cross-culture study in organizational behavior. The framework is then used to compare American and Chinese human resource theory and practice. Chinese managerial philosophy is featured as being centered on social morality, while American managerial philosophy is characterized as technical rationality. Traditional Chinese human resource practice is ruled by human beings while American human resource practice tends to be ruled by law.

Keywords: Cross-Cultural Study, Human Resource Theory, China

This paper proposes a theoretical framework of cross-culture study in organizational behavior. It compares Eastern and Western human resource (HR) theory and practice and the impact of cultural and social variables. China and the United States are selected to be representatives of the Eastern and Western world. The examples of cultural and social differences are drawn from these two countries. HR activities are part of organizational behavior, and cross-cultural comparison of organizational behavior has gained more attention during globalization process. Lytle, Brett, Barsness, Tinsley and Janssens (1995) maintain that the process of globalization has presented a strong need of cross-cultural research in organizational behavior.

In the field of human resource development, there is a keen need for cross-cultural and cross-national comparative research because of increasing awareness of globalization. The rapidly increasing globalization of business calls for more studies on international human resource management and development (Brewster, Tregaskis, Hegewich, & Mayne, 1996; Kuchinke, 1999; Maznevski, & DiStefano, 2000; Peterson, 1997). The cultural and managerial differences between the East and West have been studied extensively, mostly in the areas of culture and values. Similarly, the vast amount of literature describing or analyzing Eastern and Western styles of management usually have aimed at the general management domain. There is a paucity of literature examining Chinese and American human resource theories and practices in relation to cultural and social contexts.

Theoretical Framework

As a step toward the synthesis of cultural and social differences across countries and the implications for organization theory and practice, we propose a theoretical framework as presented in Figure 1. This framework is established on existing conceptual models of cross-cultural research in organizational behavior (Earley, 1997; Lytel et al., 1995). It is posited that HR theory and practice is part of organization theory and practice. It suggests that cultural and social variables are in the dynamic relationship and they have direct impacts on HR theory and practice. On one hand, HR theory and practice is part of broadly defined organizational behavior. Cultural orientations and social variables determine organizational behaviors in general and HR practice in particular. We view HR theory as part of managerial philosophy and HR practice as part of organizational behavior. On the other hand, organizational behavior has a reinforcement function that perpetuates its contexts such as cultural and social structures.

Culture is one of the key concepts to understand international or cross-cultural human resource study (Kuchinke, 1999a; Maznevski, & DiStefano, 2000). Culture has been normally conceptualized as a complex set of norms, values, assumptions, attitudes, and beliefs that are characteristics of a particular group (Lytle et. al, 1995). Triandis (1993) maintains that culture is the group's strategy for survival and it constitutes the successful attempt to adapt to the external environment. It is generally accepted that culture represents the "software of mind" (Hofstede, 1991, p. 3) rather than hardware. For the purpose of consistency, we define *culture as a complex system of beliefs, values and social norms shared by a group of individuals*.

As there are many ways to define culture, cultural dimensions or aspects have been conceptualized in

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various forms and terms. We posit that there are three basic components of culture: values, beliefs and social norms. *A value system is a set of explicit or implicit conceptions of the desirable or preferable ends shared by a group of people. A belief system consists of explicit conceptions that have been viewed as true representation of reality.* Social norm is *habit or behavior of individuals or groups implicitly existing in their daily lives.* The value component reflects what is important for an individual or group of individuals, and thus it determines good from bad, right from wrong. The belief component indicates what is true among human beings' conceptions and distinguishes true from false. The social norm consists of unspoken conceptions about doing in daily practice.

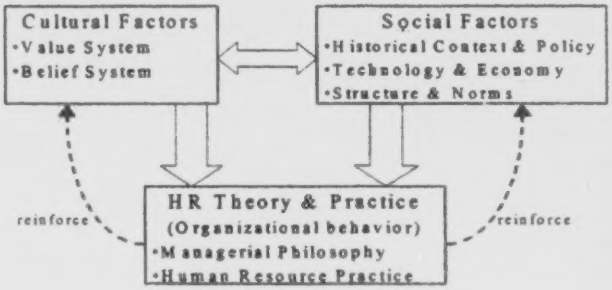

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Figure 1. A Theoretical Framework of Cross-Cultural Study of Organizational Behavior

Our conceptualization of culture implies dynamic relationships among three major components. The three components of culture, value, belief, and social norm, correspond to three knowledge facets in a holistic theory (Yang, 1999). Culture is a unique aspect of group or social knowledge. Consequently, the value system reflects critical facets of knowledge, the belief system is explicit or technical facet knowledge and the norm system is implicit or practical knowledge. Yang also outlines the interactive patterns among three knowledge facets. These interactive patterns seem to be applicable for the dynamic relationships among three cultural components. Take the value system as an example. A value is a conception of something preferable by a person or a group. At the nation or country level, a value is something socially preferable or desirable. On one hand, individuals can learn a value through the belief system (what is believed to be true) or social norm system (what is actually happening). The learned value then is integrated into the value system, resulting in either a consistent integration (simply knowledge accumulation) or inconsistence (which may bring a transformative learning). On the other hand, values and value systems are relatively stable and tend to influence the other two sub-systems of culture. The value system is critical in guiding action (within the social norm system) and in regulating human beings' technical knowledge (within the belief system).

Comparison of Cultural and Social Factors

Cultural Differences

There are many approaches to define cultural dimensions and to study cultural differences. For example, Kluckhohn and Strodtbeck (1961) suggest six cultural orientations. Hofstede (1980) suggested four dimensions underlying organizational behavior. Table 1 summarizes the comparison of the American and Chinese cultures in value and belief systems.

Value System. Five major dimensions within the value system are interrelated factors that influence individual and organizational behaviors. The first dimension is human beings' relation with the natural world. The Western culture seems to place value on mastery, while the Eastern culture emphasizes harmony. Traditionally, Chinese view harmony as the ultimate goal of human kind (i.e., "Tian Ren He Yi," or "The great harmony between human and the nature.")

The second dimension within the value system is the relationship among people. Kluckhohn and Strodtbeck (1961) point out three orientations along this dimension: individual, collective and hierarchical. The individual orientation maintains that our main responsibility is to and for ourselves and immediate families. American culture is characterized by individualism while Chinese culture is typified as collectivism. In the collectivistic culture such as Chinese, individual is less valued than a perceived collective interest.

The third dimension within the value system is the perceived importance among various activities conducted by human beings. We label this dimension as the priority of activities. Kluckhohn and Strodtbeck (1961) suggested three orientations: doing, thinking, and being. The doing orientation maintains that our natural and

Table 1. Comparison of American and Chinese Cultures

Cultural Dimensions	American (Western)	Chinese (Eastern)
Value System		
Relation to Natural World	Mastery	Harmony
Relation Among People	Individualism	Collectivism
Priority of Activities	Thinking and Doing	Being and Doing
Basis of Moral Standard	Reasoning	Feeling
Priority Along Time	Future Oriented	Present Oriented
Belief System		
Nature of Human Beings	Naturally Evil	Naturally Good
Religious Faith	External Superpower - God	No External Superpower
Nature of Knowledge	Objective, External	Subjective, Internal
Nature of Change	Linear Change	Cyclical Change
Motivation of Human Beings	Material	Spirit
Ideal & Destination	Developed Individuals	Harmonized Society

preferred mode of activity is to be continually engaged in accomplishing tangible tasks. The thinking orientation maintains that our natural and preferred mode of activity is to consider all things carefully and rationally before taking action. The being mode is to do everything in its own time. The Western culture places priority on thinking and then doing, while the Eastern culture emphasizes on being and doing.

The fourth value dimension is the basis of moral standard. As parts of the value system, the first three dimensions offer explicit and implicit standards for individual and group judgement, the fourth dimension suggests preferred ways of making a moral judgement. Wilson (1993) argues that there are four universal morals shared by all people: sympathy, fairness, self-control, and duty. The Western culture tends to use reasoning as a tool in making moral judgements (Kohlberg, 1969) and is concerned with different levels of judgement: good, right, and ought (Girvetz, 1973). Thus, the Western moral standard leans to fairness and duty while the Chinese culture tends to use sympathy and self-control as the moral standard.

The fifth dimension in the value system is the priority along time and it directs our main concerns and energy along the nature-time framework. Kluckhohn and Strodtbeck (1961) list three orientations along this dimension: past, present, and future. The Western culture tends to be future oriented and the traditional Chinese culture emphasizes on present mode in decision-making process. Weber (1904/1930) asserted that time is money for the Protestants. Time orientation is somewhat related to religious beliefs. Weber contended that: "Waste of time is thus the first and in principle the deadliest of sins. The span of human life is infinitely short and precious to make sure of one's own election. Loss of time through sociability, idle talk, luxury, even more sleep than is necessary for health. . . .is worthy of absolute moral condemnation. . . .[Time] is infinitely valuable because every hour lost is lost to labour for the glory of God. Thus inactive contemplation is also valueless, or even directly reprehensible if it is at the expense of one's daily work. For it is less pleasing to God than the active performance of His will in a calling" (1904/1930, pp. 157-158).

Belief System. Belief system is different from the value system because the former concerns the priority or importance while the later assumes what is true in the world. The belief system is composed by those basic assertions about the natural world and human beings. These assertions are basic and fundamental hypotheses that cannot be easily proven to be true or false, and thus human beings have to accept such assertions. Human beings have to hold some basic beliefs as guidelines for their actions. Thus, the belief system also includes basic assumptions about the nature world and human beings. While the value system reflects the priorities of an individual and a group of individuals, the belief system contains views about the natural world and human being that cannot be easily tested. We think that at least six dimensions can be identified to examine cultural differences.

The first dimension of the belief system is the nature of human beings. The Western belief system was established on the assumption that the basic nature of people is essentially bad. This was probably due to the Christian influence that accepts human kind as a result of eating evil fruit. On the contrary, the Chinese belief about human beings tends to assume the basic nature of people is essentially good, or at least is changeable ("Ren Zi Chu, Xing Ben Shan", e.g., "Human is born with goodness" from Confucianism).

The second dimension of the belief system is related to the first one. One's religious faith is one of the fundamental keys to one's basic assumptions about the world. The Western culture seems to have a strong religious faith. The major religion in the Western world, Christianity, views God as single superpower external to human beings. The traditional Chinese religion did not have such a belief about a single superpower. The Chinese word of god, "Shen", has multiple meaning rather than being attached to one superpower. "Shen" means god or divinity, it also means anything that is mysterious, marvelous, supernatural. In the Chinese literature of mythology, there are many gods that hold power over human being.

The third dimension of the belief system concerns the nature of knowledge. The Western culture has heavily leaned toward a rational tradition, which views knowledge as objective and that reality exist independently of mental representations of the world (Mazirow, 1996). Such a tradition also posits that logic and rationality are formal and that intellectual standards are not arbitrary. The Chinese view of knowledge is subjective and has an instrumental function. Different perspectives on the nature of knowledge are related to the views about reality. The objective perspective of knowledge might be a result of a view of a single reality, which is assumed to be created by a single superpower and to have consistent and lawful relationships among its elements. The subjective perspective of knowledge views multiple realities and implies an interpretive approach to the natural world (Roth & Yang, 1997).

The fourth dimension of the belief system is about the change of the natural world. Marshak (1994) contends that the Western OD approach is based certain beliefs and assumptions that view change as linear, progressive, destination or goal oriented, based on creating disequilibrium, and planned and managed by people who exist separate from and act on things to achieve their goals. On the other hand, the Eastern or Taoist model comprises beliefs and assumptions that change is cyclical, processional, journal oriented, based on maintaining equilibrium, and observed and followed by people who are one with everything and must act correctly to maintain harmony in the universe. Beliefs and assumptions about change are related to the belief dimensions discussed previously. The Western culture holds that there is a single best reality [created by the God] for humans to achieve in a forward way. The Eastern [particularly Taoist] culture assumes multiple realities and that there is no best or better mode of change. The Taoism emphasizes that there is a constant ebb and flow to the universe and everything in it is cyclical: "Tian Bu Bian, Tao Ye Bu Bian" (i.e., "The nature is not changing, and thus the Tao remains in constant").

The fifth dimension of the belief system relates to the inherent motivation of human beings. Based on the assumption that human beings are naturally evil, the Western culture presumes a materialistic motivation. The Eastern culture, however, maintains that the essence of human kind is in its spirit. In the case of conflict, people should pursue the spiritual direction rather than the material one. The Eastern culture recognizes that people might be seduced by the materialistic world and by selfishness, and it thus calls for self-control and cultivating. There is a Buddhist scripture that captures such a view: "Ku Hai Wu Bian, Hui Tou Shi An." (i.e., "The materialistic sea is endless, coming back [to be good one] can reach the shore"). In the combat world, Western soldiers are instructed to protect themselves while Chinese solider are educated to "She Shen Qu Yi" (i.e., "sacrifice your body for justice and righteousness").

The sixth dimension of the belief system is concerned about the ideal destination of human beings. The Western culture emphasizes individual rights and freedom and views fully developed individuals as the ultimate goal. The Eastern culture places the harmony among human beings and the nature as the ultimate goal. Thus a harmonized society is viewed as much more important than an individual's right or growth in China. The Western culture seeks fully developed human potential with an active, individualistic approach.

Social Differences

Rohner (1984) defines a social system as the behavioral interactions of multiple individuals who exist within a culturally organized population. Society is a complex system and there are numerous aspects that can be examined. We have identified the most relevant aspects of society in examining the impacts on organizational behavior. Table 2 lists several aspects where the USA and China have dramatic differences. We included two cultural dimensions, power distance and tight versus loose (Earley, 1997) and renamed them as social structure and reinforcement of social norms. We place these dimensions in the category of social contexts because they belong to neither the value system or the belief system. In fact, these two dimensions are contained by the social norm system.

China. China is the world's largest third-world nation in terms of its economic development. China's population has exceeded 1.2 billion. Geographically, China is the world's fourth-largest country (after Russia, Canada, and US). China is also a country that has thousands of year history. For centuries China has stood as a leading civilization, outpacing the rest of the world in agriculture, technology, arts and sciences. China gradually became a semi-colonized country since the mid nineteenth century when it lost an opium war to the British Empire. Western imperialists forcibly opened China's trading doors by addicting a considerable portion of the population to opium. For almost a century, China suffered from famines, civil unrest, military defeats, and foreign occupation.

Table 2 Comparison of American and Chinese Societies

Social Dimensions	American	Chinese
Overall Social Context	Largest Industrialized Nation	Largest Third-World Nation
History	Hundreds of Years	Thousands of Years
Economy System	Free Market Capitalist Enterprise	From Central Planning to Free Market System
Technology	Sophisticated Manufacturing and Growing High-Tech	Majority of Workforce in Ag. Mix of High and Low Tech
Social Structure	Moderate Pyramid	Flat but Heightening
(Power Distance)	Moderate Distance	Low but Increasing Rapidly
Reinforcement of Social Norms	Loose	Tight but Beginning to Loosen

After World War II, the Communists under Mao Zedong established a new republic, ensured China's sovereignty, imposed the communist ideal of egalitarianism and great harmony. Under Mao's leadership, Chinese regained respect and dignity but economic development was stagnated. After 1978, Mao's successor Deng Xiaoping launched reforms and decentralized economic decision-making. Output quadrupled in the next 20 years and China now has the world's second largest GDP.

Beginning in late 1978 the Chinese leadership has been moving the economy from a sluggish Soviet-style centrally planned economy to a more market-oriented economy. The old collectivization in agriculture (i.e., commune structure) was replaced by a system of household responsibility, more decision-making power was given to local officials and plant managers in industry, and the government finally allowed a wide variety of private-owned enterprises. At the same time China opened to the Western countries and the "open door" policy has resulted in increasing foreign trade and investment. The reform is a successful one as it quadrupled GDP since 1978. In 1999, with its 1.25 billion people but a GDP of just $3,800 per capita, China became the second largest economy in the world next to the USA. Agricultural output doubled in the 1980s, and industry also posted major gains. On the darker side, the social structure has been transformed from a flat system (egalitarian, stagnated, lassitude) to a vibrating hierarchy (bureaucracy, corruption, impetuous). Deng Xiaoping invented the term of "a socialist market economy" to describe his vision of China. One of the biggest challenges for his successors in next few years is to balance a highly centralized political system and an increasingly decentralized economic system. At the same time, the economic reform has opened a Pandora's box (e.g., individual interests that lead to selfish behaviors) that has caused a tremendous challenge. In sum, China is the largest industrializing country that has many problems to face that were preciously faced by many other developing countries.

The United States. Unlike China which has a long history filled with chaos and civil wars, the relative short history of the USA witnessed only two major traumatic experiences in the nation's history (Civil War and the Great Depression). Buoyed by victories in World Wars I and II and the end of the Cold War, the USA remains the world's most powerful nation-state. The economy is marked by steady growth, low unemployment and inflation, and rapid advances in technology. The USA has the most technologically powerful, diverse, advanced, and largest economy in the world, with a per capita GDP of $33,900. In this market-oriented economy, the pyramid of social structure is moderately high and it loosely reinforces the social norms. Both political and economic systems allow private individuals and business firms to make most of the decisions. At the same time, government does not run business and it has to buy needed goods and services predominantly in the private marketplace. The USA is featured as a loose country in terms of its reinforcement of social norms. The American economy is characterized by increasing high-tech and service. American firms are at or near the forefront in most areas.

Comparison of Human Resource Theory and Practice

Managerial Philosophy

Table 3 summarizes the major differences between the Eastern and the Western approaches to management. The interactions among three cultural systems (value, belief and social norm) have resulted in different spiritual attachment in different social contexts. For the majority of Americans, the term "spirit" means the relationship with the God. Thus the featured spiritual life is standing aloof from worldly affairs in the American culture. On the contrary, the dominant spiritual idea in China is Confucius teaching: "Xiu Sheng, Qi Jia, Zi Guo, Ping Tian Xia" (i.e., "cultivate one's moral qualities, set up family, serve for the country, and work toward equality and harmonized world"). Consequently the Chinese view of spirit as it exists only in entering into worldly affairs.

As a result of interactions among values, beliefs, social contexts and spiritual attachment, American management theory and practice rely on technical rationality. Organizations are set up to maximize their earnings or profits. Organizations are established on an individual basis. Individual employees are hired and fired based on mutual will. The overall managerial strategy is characterized as a proactive approach, which requires positivistic means in problem solving (i.e., an empirical approach, a fact-finding process toward a positive direction). Decisions making is characterized as a rational process (i.e., linear, step-by-step, maximize outcome). It assumes that the problem is clear and unambiguous and that managers clearly know their options and preferences. Such management approach also emphasizes innovation and progression as viable means to reach the organizational mission (i.e., profit). System and structure have been placed heavy weights in management theory and practice. Thus, American management philosophy can be featured as technical rationality.

Table 3. Comparison of American and Chinese Managerial Philosophies

	American (Western)	Chinese (Eastern)
Spirit	Stand Aloof From Worldly Affairs	Enter Into Worldly Affairs
Organizational Value	Maximizing Profit	Benevolence and Righteousness
Organizational Form	Individual Basis	Family Basis
Managerial Strategy	Proactive	Reactive
Problem Solving	Positivistic Means	Naturalistic Means
Decision Making	Rational Decision	Muddling Through
Managerial Emphasis	System and Structure	Process and Practice (Human Side)
Preferred Method	Innovation and Progression	The Golden Mean (Confucianism)
Main Characteristic	Rely on Technical Rationality	Center on Social Morality

Viewing the world as chaotic and human beings as naturally good (or at least can be educated to be good), Chinese management philosophy takes a vastly different stand from the West. The Chinese culture impels individuals to enter into worldly affairs to find their spirit. Traditional private businesses are set up on a family basis with a managerial philosophy of benevolence and righteousness. Business is viewed as an instrumental entity to yield goods and service to fulfill its social responsibility. Chinese businesses tend to depend on networking closely related to family and lineage (Chi-Cheung, 1998). The overall managerial strategy is reactive (i.e., "Ying Bian") or sometimes passive ("Wu Wei Er Zhi", i.e., "manage by letting things take their own course"). Such managerial philosophy is consistent with the naturalistic/interpretive problem solving method. Decision-making process can be characterized as "muddling through." One of Deng Xiaoping's major reform theories is so called "Mo Zhe Shi Tou Guo He" (i.e., "grope for stones while passing the river". Related to this problem solving style is the emphasis on the human side rather than the system side in management. Rules and regulations do not appear to be as important as human beings. Managers in a collectivistic culture prefer personal appeals and emotional strategies rather than rational decisions (Shane, 1994). Consequently organizational process and practice have received more attention than structure and system. The essence of the Chinese managerial approach can be found in the dated Confucianism classic "The Golden Mean." This mean managerial method prefers to bring about equilibrium rather than to create disequilibrium. It requires balance not only between human beings and the environment but also among people in a community or society. The underlying force that drives such managerial philosophy is social morality that calls for organizational ethics and social responsibility. Zhang (1993) contends that "Yi Li Lian Quan" (i.e., "overall balance between justice and profit") is the driving force for the enterprise competition in East Asian.

HR Theory and Practice

We listed the differences between American and Chinese HR practice in Table 4. We will try to compare the two countries in virtually all HR areas including the nature of employment, selection, compensation, promotion, and evaluation. We also have taken an HR outlook for the two countries in the following areas: HRD emphasis, goal, HR function in organization, and the main characteristic of HR practice.

The USA is a market-oriented capitalist country. Human resource practice has been determined by its cultural and social contexts. Moreover, HR practice has been integrated into its social and cultural systems and become part of social norm system. Most jobs in the USA are contracts based on will. That is, both employer and employee find their best fit to meet their mutual needs in a free job market. Employee selection is largely based on ability and competence. Employee compensation is established on the basis of work performance and contribution to his/her organization. Performance evaluation is conducted with quantifiable data in a scientific way. Human resource development has been placed on training and development. The basic function of HR is to contribute to the overall organizational performance in terms of profit making and thus is viewed as one kind of capital (i.e., human capital).

Table 4. Comparison of American and Chinese HR Practice

	American (Western)	Chinese (Eastern)
Nature of Employment	Contract Based on Will	Long Term Employment
HR Selection	Ability/Competence	Morality/Social Connection
Compensation	Performance	Seniority
Promotion	Potential Development	Loyalty/Social Acceptance
Evaluation	Quantitative Method	Qualitative Method
HRD Emphasis	Training and Development	Management and Utilization
HR Function in Organization	Economic Outcomes	Social Outcomes
HR Goal	Fully Developed Individuals	Social Harmony
Main Characteristic	Rule by Law	Rule by Human Beings

The implicit goal of such HR practice is to fully develop individual potentials in a competitive job market. Overall, the US HR practice can be characterized as a rational approach and ruled by law.

Prior to the economic reform launched in 1978, the dominant management philosophy in China was one of economic egalitarianism. Such philosophy works toward a classless society and requires little difference between the salaries and compensation of managers and workers. Economic egalitarianism can be traced thousands years back to the Chinese history that is filled with corrupted old dynasties and new dynasties in turn. The new dynasties were normally brought by uprisings with certain egalitarian slogans (e.g., "Tian Xia Wei Gong", or "land under heaven belongs to all"). Throughout the long history of China, virtually every party and government emphasized the importance of morality and personal integrity. An appointment is made primarily on the basis of a person's morality or loyalty to the party in power. Leaders and managers were selected even though they are not necessarily technical competent. Such practice of HR utilization has been best summarized by an ancient Chinese politician and scholar, Shima Guang, in his famous annalistic-styled historic book "Zi Zhi Tong Jian." This book became a must-read for later rulers. Shima proposed a dialectic relationship between two key qualities of an individual: "De" (i.e., "morality") and "Cai" (i.e., "competence"). He posited that morality is the commander of competence which, in turn, provides a ride for the morality. He further classified all individuals into four types. The first type is called "Sheng Ren" (i.e., "wise person") who possesses both strong morality and talent. The second type of person is called "Xian Ren" (i.e., "person with virtue") who shows strong morality but probably less competence. The third type of person is named as "Xiao Ren" (i.e., "mean person" or "villain") who has certain ability but poor personal integrity. The fourth type of person is called "Yong Ren" (i.e., "mediocre person") who is low in both competence and morality. Shima suggested that the wise person should be the first choice in personnel utilization, followed by the person with virtue. When neither the wise person nor the virtue person is available, he maintained that the mediocre person should be selected rather than the villain because the mean person would work for his/her own interests rather than work for the community and society. Though being less competent, the mediocre person is better than the villain because of inability of doing harmful things to the organization/community/society. The key principle of Chinese HR is often called "De Cai Jian Bei" (i.e., "having both political integrity and competency").

Traditionally, employment in China is long-term, long enough to be life-long. Employee selection was based on morality and social connections, while personal competence was regarded as less important. In China, "Guanxi" (i.e., social connections) has been formalized as valid means of employment. Guanxi refers to a network of personal favors and obligations stemming from various social ties. Aufrecht and Bun (1995) observed that the lack of a free market for so many commodities makes Guanxi a particularly tricky obstacle to reform. Compensation was largely established on seniority rather than performance. Promotion was conducted on the basis of loyalty and social acceptance. Performance evaluation was largely qualitative nature and tended to be subjective. HRD emphasis was placed on management and utilization rather than training and development. Human resource is a new concept being introduced to China after reform. Most organizations do not have HR departments and they establish personnel departments to take care of all personnel related affairs (Lin, 1999). One of the major HR functions was to bring about desired social outcomes (e.g. no one should be unemployment) rather than economic outcome (e.g., profit and efficiency). Thus HR was supposed to function as a part of the broad social system working toward social harmony. Overall, HR practice can be characterized as being ruled by human beings (i.e., "Ren Zhi" or "Yi Ren Wei Ben").

Contributions to New Knowledge in HRD

The present study contributes to the knowledge base of HRD in a number of ways. First, the theoretical framework proposed in this paper provides a useful tool in a cross-cultural study in organizational behavior. Second, the comparison of HR theories and practice between the USA and China in this paper will provide adequate explanations and practical tools for the HR professional working in an international arena, particularly between the USA and China. Third, this paper provides a framework for scholars and HR professionals to reflect on their own values and belief systems in order to improve research and practice. Each culture has its fundamental values and beliefs and shows some unique norms. There is no judgement in our analysis in terms of which culture is superior or better. Each culture has successfully evolved hundreds or thousands of years in the civilization process and developed certain relations between the environment and among its members. However, these relations among the cultural factors are not static. Cross-cultural examinations help us to learn valuable elements from other cultures. Manager and other HR professionals can borrow some fresh ideas and effective practices from other cultures through cross-cultural study.

Conclusion

This paper proposed a theoretical framework of cross-cultural study in organizational behavior. It is posited that culture contains three major subsystems: values, beliefs and social norms. This framework is then used to compare American and Chinese HR theory and practice. Organizational behavior is included as part of a social norm system which, on a macro level, interacts with its value system and belief system. Content analysis revealed that Chinese managerial philosophy and HR practice are drastically different from the American one. Chinese managerial philosophy is featured as being centered on social morality, while American managerial philosophy is characterized as technical rationality. On one hand, different managerial philosophies attribute to different values, beliefs, thinking and doing styles, and a number of other social and cultural factors. On the other hand, different managerial philosophies have resulted in different HR theories and practices. Traditional Chinese HR practice is ruled by human beings while American HR practice tends to be ruled by law.

Care should be taken into account in generalizing the concepts and conclusions presented in this paper. What we have done was a comparison between traditional or normative modes of cultural and social dimensions between two countries. As a result of rapid social and technical changes and increasing international exchanges and communications, every culture is changing. For example, one might be able to find a strong individualist feature of organizational behaviors in these newly established regions of China due to privatization and rebellion of traditional ideology. For a large and complicated country like China, we need to examine several competing value systems. We should overcome a simplification that assumes a unitary and consistent culture for each country. Most countries are facing dramatic changes and experiencing cultural reconfigurations. We should examine cross-cultural and cross-national organizational behaviors in the light of dynamic relationships among cultural elements as proposed in this paper rather than view them as static.

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Enhancing Commitment and Overcoming the Knowing-Doing Gap: A Case Study at the Technikon Northern Gauteng (TNG) in South Africa

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This case-study deals with the problem of overcoming the knowing –doing gap and increasing commitment in an action-research project. It is based upon a social constructionist framework and was conducted at TNG, a Tertiary Educational Institution in South Africa. After preparatory interviews, a Strategic Human Resource Management Conference brought all managers of the TNG together in a context where a set of 'process and context characteristics' were applied.

Keywords: Organizational Commitment, Knowledge Transfer, South Africa HRD

Pure knowledge about HRM and Organizational Change is rapidly increasing. But the application of this knowledge, or putting this knowledge into practice is difficult and doesn't seem to be able to keep up the pace. As academics we need a shared 'view' on and 'knowledge about 'process and context characteristics', based upon research. This case study wants to contribute to this need.

South Africa has undergone an enormous transformation process. Institutions for professional education such as The Technikon Northern Gauteng (TNG) play a major role in this process. TNG is a formerly disadvantaged Tertiary Educational Institution in South Africa[1]. It mainly focuses on providing bachelor degree studies (3 year programs). The institution is situated in Soshanguve (a township near Pretoria), has six faculties, about 600 employees and about 8.500 students.

The Technicon, with its faculties of economics and management, education and commerce, can count on a lot of highly educated staff members that are skilled to solve problems and bring about changes. But these 'knowledgeable' people are not used to exchanging ideas, to decide in consultation on a common goal that all of them want to reach; they don't lack knowledge, but they fail to share it. On top of that, there is the division between the so-called 'powerful people', qualified to make decisions, and the labourers. Effective communication between both parties is often problematic. And thus problems occur that are difficult to solve: individuals alone can't make it happen. This is not a South African problem or a problem of a specific country. It is an organizational problem.

Problem statement

The TNG doesn't lack competent staff: they know a great deal about HRM and Organizational change, they are motivated and loyal to the institution they work for and certainly show commitment to the institution's goal, i.e. providing students with a decent professional training and education. But how can we make them put their knowledge into practice? How can we increase their ability to turn knowledge into action?

Theoretical framework

This action-research project focuses on overcoming the knowing-doing gap and on increasing commitment. It is based on a social constructionist view on organizations.

1. Research demonstrates that the success of most interventions designed to improve organizational performance depends largely on implementing what is already known, rather than from adopting new or previously unknown ways of doing things." (Pfeffer & Sutton, 2000). Many successful interventions rely more on implementation of simple knowledge available within the organization than on creating new insights or discovering secret practices

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used by other firms. This means that *overcoming the gap between knowing and doing* is very important for an organization's performance. Although there are differences in knowledge across organizations, a much larger source of variation in performance stems from the ability to turn knowledge into action. If the employees learn from their own actions and behavior, then there won't be much of a knowing-doing gap because they will be "knowing" on the basis of their doing, and implementing that knowledge will be substantially easier (Pfeffer & Sutton, 2000).

2. The key to quality and productivity, to obtain sustained, superior performance is *employee commitment.* This is especially true in services, e.g. in research and education, at universities and schools where the performance of the service-people at the key-moments of delivering is decisive. The four supports of commitment read as follow: (a) clarity about goals and values; (b) employee competencies that allow success; (c) the degree of influence that employees have; (d) the expressed appreciation given to employees for their contributions (Kinlaw, 1993).

(a) Clarity about Goals and Values. For commitment to a job an employee must have a focus. Focus is created by communicating the strategic *goals* and core *values* of the organization downward through *each level.* Supervisors and their subordinates have to have the same opinion over: the number-one purpose as a work group and what makes this purpose important and over the values that currently and ideally drive the work group's performance.

(b) Employee Competencies that Allow Success. People develop commitment toward what they believe they can do well. If managers want commitment, they must make sure that employees have the ability and willingness to be successful in their jobs. The most personal strategy for building competence is coaching.

(c) The Degree of Influence *that Employees have is the Third "Leg" of Commitment.* Employees do not perform nearly as well when they are consistently denied any input in their jobs and are expected to follow unquestionably the decisions of their leaders. There are three areas for influence innovation, planning and problem solving; and three kinds of influence within each area: inputting, deciding and implementing. Inputting means identifying problems, researching data, providing technical information and expertise. Decision making means participating in decisions about problem definition, about which problems will be addressed, etc.; Implementing means designing solutions, undertaking and evaluating strategies, etc. Coaching is the key for extending the influence of employees. In their coaching conversations with employees, managers permit employees actively to identify their own needs and to help shape the ways these needs are met.

(D) The Expressed Appreciation *Given to Employees for their Contributions.* People work best when they believe that what they do matters to someone else - especially their bosses. Of course, there is need to recognize superior performance. But one needs to recognize more than performance. Employees often feel more appreciated for having their pain recognized than for having their performance recognized. Of course appreciation can also be something creative or even outrageous or can be deliberately made in public (Kinlaw, 1993).

3. We chose to study an organization from a *social constructionist* angle (Wieck, 1995; Gergen, 1994,1996) and to see an organization as the result of ongoing negotiations between all the parties involved in the organization. The creation and sharing of 'meaning' is the basic process of organization. This means that an organization is seen as a co-creation, as something in a constant state of becoming. In social constructionism organization diagnosis and organization intervention are closely linked. Working on a diagnosis and seeking joint visions implies a constant construction and deconstruction of shared 'meaning'. We therefore deliberately avoid scientific research that studies an organization as an "object" from an exogenous perspective. We consciously choose to do action research (see methodology).

This is the framework of our research: an action-research project, based on a social constructionist view on organizations and directed towards overcoming the knowing-doing gap and towards an increase in commitment to work towards solutions.

In previous action research about Optimization of personnel management in the Belgian Tax Administration, situated within the same theoretical framework (Martens,1997; Martens & Corthouts 1997 & 1998), we formulated the following *process and context characteristics that were helpful to overcome the knowing-doing gap and increase commitment of employees to act on solutions.*

1.Introduction and support of top management and authorisation by the hierarchy.

2.Take viewpoints, opinions, ideas, perceptions, limitations and objections of the other party or parties seriously; unconditionally, genuinely and consistently with an appreciative attitude.

3.Propose or introduce a long-term principle of co-operation. Look for a jumping-off point, a common value or goal of real interest to all parties, as this will have a positive effect on every participant. Seek for a win-win relationship between organization and individuals as well as between researchers and clients by establishing contact and by discussing the aims of the research, their contribution, the further processing and the expected output.

4.Reaching joint agreement on the directions and the operational procedures to be taken in each step. Every time a next step needs to be taken in , careful consideration of all parties is required. The next step is not taken unless all parties consider it meaningful and take up their responsibility for it. The end result of each step is jointly evaluated, before moving on to another stage.

5.Openness in communication. Encourage people to be honest with each other and to say what is really on their minds. Parties should encourage each other to be equally frank and forthright. In this way, an open atmosphere is created: there is plenty of space for questions, discussions and individual opinions (trying to use model -2 behavior of Argyris, 1990)

6.Reframing information, creating openings to view things from different angles. For example, by appreciating different opinions yielding different views on reality (see 1) and by "experiencing" that there is no such thing as THE ONE objective reality, participants learn that many subjective perceptions of different individuals should be considered contextual data which need to be taken into account

7.Gradual recognition of the role of external facilitators, action-researchers and valid conversation partners. These 'process and context characteristics' do not assure success. Neither can we provide you with practical instructions for using them . But we will investigate whether they are clear enough to act as goals and guiding principles in the interaction process with our client. In order to do so, we will act '...as an active agent within the organizations themselves, serving for example, as consultant, organizational participant, board member or evaluator.' (Gergen, 1996, p.372) And further: 'the postmodernist view offers an alternative vision of organization science, one that places a major emphasis on processes of social construction, that emphasizes continuing interchange, continuing reflection and transformation. (Gergen,1996, p.374).

We will further investigate and improve these 'process and context characteristics' in this TNG-project.

Research questions or propositions

This case-study concentrates on overcoming the knowing –doing gap and increasing commitment in an action-research project based upon a social constructionist framework.

If we, researchers and clients constantly try to realize the above formulated 'context and process characteristics' in this project, is it then possible to overcome the knowing-doing gap and to increase commitment? Or do we need other conditions? Which ones?

Methodology and/or research design

We explain our preference for action research, the situation of HRM at TNG, our proposal: a HRM-conference for all managers, with preparatory interviews and a debriefing at the rectorate, the results of the conference.

Action research

The desired output of *action research* consists of solutions to actual problems on the one hand, and of making a contribution to scientific knowledge and theory on the other (French and Bell, 1995). This is research with the objective of steering present and future action from the inside, and with the typical co-operation between individuals working within the system (referred to as "clients") and individuals outside the system (referred to as "researchers"). We regard this action component, working alongside with TNG-employees and the implementation of research results, as a particular mission and challenge. This action-research research strategy implies an iterative process of purposeful data-collection, feedback to the client group, discussion of data, action planning, action and evaluation. The perceptions yielded by this cyclical process are continuously the subject of implementation and testing. This increases the validity of the generated knowledge in the context of the professional university sector. This process of collectively negotiate the new way of organizing is the most decisive within the learning process. (Swieringa 1990). In this way we involve people in research and action so that the organization benefits from its inside knowledge and skills, and, what's even more important, that people are motivated to help each other out. By choosing action-research, we opt for a win-win operation between TNG and research. We opt for co-operation between researcher and clients and work in close contact with top-management of the TNG.

The situation of HRM at TNG

In the past 5 years quite a few things have changed at the TNG, with some remarkable changes in HRM at TNG: structural changes were brought about, the personnel policy has been revised and a lot of co-workers changed. A lot of improvement plans were devised, some of these were worked out in close contact with key persons, others were made without consulting. Few of these plans have been implemented so far. Key persons have the feeling that they have to discuss problems concerning their daily working situation over and over again, and they *do* think about solutions to these problems; but they feel that few things really change. Many of these 'daily' problems affect more than one department and people of different departments reproach one another. HR tasks and responsibilities aren't divided up clearly between HR department and line-management, managers are complaining about the services of the HR department, reproaches are made towards one another. As a result, there sometimes isn't any staff to teach classes... HR-policies and procedures are not in place, some are outdated, disputed, unknown, confusing and sometimes even ignored and there aren't any plans on paper. The problem with situations such as this one is that matters are usually dealt with on an ad hoc basis: Line-managers tend to go their own way and solve HR issues in a way that (sometimes) suit them best; meanwhile the HR people continue to fight their own uphill battle. Next to a general feeling of discontent and discomfort on both sides and a strong need to improve the current situation, individuals and groups feel they don't have enough power to bring about changes.

One of the HR-experts has completed several missions since 1997 and has built up very good relations with academic and administrative managers on different levels, as well as with the people of the HR-department. Together they put together an" Introduction Booklet" for new staff members (1997) and organized several training sessions dealing with basics in HRM and project management for managers in general and for Personnel Officers. He also did quite a lot of personal coaching for new Personnel Officers. However, due to a high turnover rate in the Personnel Department and the lack of a HRM Director, it sometimes seems to be an uphill battle.

Our proposal

From December 1999 onwards, both HR-experts worked on a proposal containing 'context and process characteristics' that would help achieve their goal, i.e. overcoming the knowing-doing gap and increasing the employees' commitment. This is important to finalize a sound HRM together with the local staff. The experts discussed their proposal with the local co-ordinator in December 1999.

In order to create a context in which managers could share knowledge and learn from their own actions we would like - to unite academic and administrative managers of different levels and the top management or rectorate

- to discuss and analyze the problems with the whole group and to focus on solutions rather than reproaches.
- to motivate every individual to deal with those aspects of problems and solutions that he or she can handle because he or she is able to take that responsibility
- to be clear about expectations, roles and contributions in the client – supplier relationships between different departments and services.
- for the rectorate to commit to and support the commonly agreed upon solutions and provide the resources needed to implement these solutions. If it is impossible for them to provide these resources, they should explain why.
- to do all this in a very effective and efficient way in order to create a feeling of acceptance in the in and between groups of participants. We want them to be proud with the outcome and stimulate them to proceed and keep up the good work.

With this in mind a Strategic Human Resource Management Conference was held on February 16th-17th 2000, which was open to all managers of the TNG. Before the conference took place, the two HR-experts sat together with the rectorate and with the participants (divided in small groups of 2-6 persons) to discuss and negotiate the purpose and the roles of all parties.

The following *objectives* were discussed and negotiated with all participants before *the conference* took place: (1) Develop written and broadly accepted strategic plans for the near future; (2) To work together as a HR department and line management and to learn more about where we are standing now and what direction we want to take; (3) Develop shared perceptions on present and future HRM.

These proposals and objectives are the vehicles to realize the 'process and context characteristics' helpful to overcome the knowing-doing gap and to increase the employees' commitment. In line with this action research study, we first talk with each group separately to analyze their current situation and compare it with their ideal situation, to discuss their own expectations and those of their superiors, and to think about a plan of action to move closer to this ideal situation. We organized this process within each group before the conference in preparatory interviews and between all groups during the conference.

The preparatory interviews

The conference was preceded by a number of interview-rounds for the different groups of managers. The rectorate, the deans, heads of the departments, directors of administration and supporting services were all involved in these sessions. We invited all managers before the conference and hoped to talk to an as large and representative group as possible. 60 out of 71 managers came to the interviews. We talked with them in groups of 2-6 persons for approximately 1,5 hours. In these preparatory interviews 'the process and context characteristics' mentioned above were our guiding principles.

We always started with a short introduction to discuss the purpose of the conference. Then we asked everyone about their experiences, expectations and concerns and what the outcome of this conference would or could be. We went on explaining that, to us, HRM covers the HR activities of the HR department as well as those of the line management. Then we showed them the conference schedule and explained the methodological specificity. We put a lot of stress on the fact that we expected them to contribute and made it very clear that we would just take up the role of facilitator. In these interviews with *almost all academic and administrative managers*, we commonly investigated and discussed their problems and frustrations. We brought various kinds of expectations together and made them more realistic. Finally we discussed their roles and responsibilities, and worked on motivation and trust. We handed out schedules with the purpose of the program and the two days procedure. Each interview round was closed with the following questions: Are you willing to commit yourself to solving the existing problems? Are you willing to contribute during the conference? Are you willing to continue to work on improvements after the conference? Some participants were truly enthusiastic, others had their doubts. These doubts were taken seriously. But in most cases, we succeeded in breaking their barriers after a lengthy discussion. However, three individuals (all three of them belonging to different groups) remained uncertain .

In our first interview with the *top management* we talked about a number of things: first of all, we indicated that if problems occur, they can be solved or at least controlled by the management team in 80% of the cases. We also asked whether they would be prepared to support the results of the conference and whether they would take necessary measures, even drastic ones. We also asked them to open the conference, to express their expectations and to show their commitment. They promised to do their best to support the conference and its results.

The conference

The rector opened the conference and pointed out the importance of finding sensible solutions to many of the HRM-problems, so that TNG would be able to fulfil her mission in a better way. Then we started with the results of the interviews, as summarized above. We proposed to work together towards a solution to the problems discussed and to stop reproaching one another and to work according to our 'process and context characteristics'.

We pursued a participatory approach. Ideas, perceptions and interpretations were prioritized and evaluated in a sequence of sessions during the two days of the conference. These sessions dealt with: (a) the trends or developments that affect HRM of TNG, (b) the stakeholders and their interests, (c) the purposes of HRM, (d) 4 steps of the SWOT-analysis and finally (e) the strategic action plans.

In order to assure an ordered course of events (i.e. inventory and prioritization), the participants were split up in heterogeneous groups of 6-8 persons, each sitting at a table. In each session everyone was asked to write down his/her own opinion on separate sheets of paper. E.g. what do you consider the most important trends or developments that are coming up and that will affect Technikon's HRM policy? Then, participants exchanged answers and opinions and voted on their importance. In this way, a ranking of topics that deserved priority was obtained. These were gathered on a central table and after an explanation by each table-leader, participants were asked to vote once more. In this way we came to a group decision in each session. This decision consisted of the prioritized answers of the entire group. All this was done in accordance with a relatively tight plan.

So we started with a *first session:* the identification of trends that influence the HRM at the TNG. In a *second session*, the stakeholders of TNG were stated. Because there was a large diffusion as to what the field of HRM operations is and what the borderlines are between the work of HR department and the HR work of the managers, we decided to give *a short lecture on the HR models* of Tichy (1984) and Beer (1985), the expected results of a good HRM and different possibilities to divide the HR-work between the human resources department and the line-managers. We thought that this short theoretical lecture would mean more to the participants than an unclear participatory discussion. In the third session the objectives for human resources at TNG were discussed and formulated. Then the interactive *SWOT- analysis* followed. This took us almost half a day.

Then the most important part of the conference, the *development of strategic plans*, began. We started off by forming four voluntary workgroups, all of them working on different issues: a first one on human resources policies; a second on a human resources manual; a third on staff training and development and a fourth on the clarification of the division of responsibilities and work between the human resources department and the managers. Each group got an assignment that was designed to work towards solutions to the formulated problems. Every assignment consisted of defining objectives, activities and a timeframe.

Making these assignments had a positive effect on the energy level of the participants. Many participants explicitly mentioned that they were making progress. Especially the presence of important decision makers gave them the feeling that problems could be discussed and that improvements could be made The four groups worked on very differentiated, well-equilibrated and realistic assignments. When the results of the four assignments were presented, volunteers were encouraged to actually carry out the proposed work. Each group or 'taskforce' elected a chairperson and was placed under the mentorship of a dean.

At *the very end of the conference,* one of the black managers asked us the parole to initiate a short prayer of thanks and so the conference ended unforeseen in a very authentic and impressive way.

When they left the conference, participants pointed out that just at the end nobody of the rectorate was there anymore. But a debriefing was planned and one of the HR-experts was willing to personally follow up the results after the conference. He also promised to discuss potential problems with the rectorate. This meant a lot to the participants.

The debriefing at the rectorate

So, during the next day's debriefing at the rectorate, we asked one member of the rectorate to act as a godfather for the four taskforces and to pay attention to the links between the four task forces. We also asked them to take action, to provide the necessary professional staff at the human resources department in order to solve the most serious problems (e.g. no lecturers to teach as a result of delays). We wanted our two-day workshop to be inspiring and motivating: if the participants have a positive short-term experience, it stimulates them to keep developing and improving.

Results and findings

On the one hand, there are the results useful to TNG in particular; on the other hand there are the scientific findings about process and context factors to overcome the knowing-doing gap and increase commitment.

Results of the conference for TNG

We designed the intervention in such a way that the objectives of the conference could be met. Looking back on the objectives we see that: (1) TNG has written and accepted strategic plans for the near future now; (2) we worked and learned together as a HR department and linemanagers and (3) we also think we have contributed to the development of shared perceptions on human resources at least at the level of the existing problems and what has to be done about it in the near future.

First there are the four project groups with specific strategic plans for HRM: (1) for human resources policies, (2) for a human resources manual, (3) for staff training and development and (4) for the division of responsibilities and work between the human resources department and the managers. The four groups work on a very differentiated, well-equilibrated and realistic assignment, that consists of objectives, activities and a timeframe; volunteers carry out the proposed work; a chairperson for is elected for each group and is placed under the mentorship of a dean. One member of the rectorate will act as a 'godfather' for the four taskforces and pay attention to the links between the four taskforces. Participants, rectorate and we as HR-experts thought of it as high-quality assignments. And they were commonly negotiated and agreed upon! In this way the knowledge available in the organization was brought together to solve the problems.

Secondly there is *the process result* of sitting two days together in multi-functional groups of people who are in supplier-client relations. Participants have been encouraged to work together in diverse groups: young and old, black and white, academic and administrative, men and women, different religions etc. and they told us during and after the conference that they had learned to appreciate each other more than before. These two days of formal and informal talks and conversation *increased the quality of the communication and interaction* between the different groups at the TNG, they reported.

Thirdly there are *the negotiated and 'shared' intermediate results of the conference* dealing with (a) the trends or developments that affect HRM of TNG, (b) the stakeholders and their interests, (c) the objectives for HRM at TNG, and especially (d) the SWOT-analysis of HRM at TNG. The consciousness between the participants of having an agreement on these questions can be a good starting point for further actions and are indeed the topics of the workgroups. We made sure that every participant got a full conference report within one week after the conference.

In the official evaluation of the whole IPD-project in October 2000, IMEconsult (2000) writes about our action research "... a lot of people have been involved in the workshop and this has resulted in encouraging debates about managerial issues. A start has been made with developing strategic plans and objectives. The attitude (of the HR-Department) has changed from being a closed Kingdom into a more service-oriented department. People were offered a lot of opportunities to contribute to organizational development." But also: "There still is a variety of opinions on what HR should do and what the responsibility devision between management at all levels and HR department should be like." And: "There still is "a focus on individuals instead of systems or mechanism."

Overcoming the knowing-doing gap and increasing commitment

In order to overcome the knowing-doing gap and to increase commitment, we organized a strategic HRM-conference at TNG as an action-research project. The different steps of the iterative process of purposeful data-collection, feedback to the client group, discussion of data and action planning interacted constantly. Participants gave feedback throughout the conference and adjustments were made on the spot whenever necessary. The data-collection, and the process of learning to discuss problems and deal with them as a group were very important.

In preparatory interviews we invited all managers to make a joint diagnosis and eventually to propose solutions; we put heavy emphasis on the 'process and context characteristics' that we continually tried to realize and to safeguard. These interviews with the participants just before the conference, turned out to be very valuable, not only as a means of preparation, but also to establish the 'context and process characteristics' and to obtain insight in the current problems and feelings.

All these different diagnoses formed the starting point for the conference. We stressed that all different viewpoints would be taken seriously. The rector opened the conference by explaining the common goal that nearly all participants had personally and fully agreed upon during the interviews. The common goal and the first steps to be taken were truly based on a shared view. During the whole of the conference we tried to stimulate open and effective communication, the reframing of information, the creation of openings for viewing things from different angles, e.g. by having individuals write down their personal opinions first, and then list them and make up a ranking in group. The conference was an inviting and save context, they told us, to work together and to exchange ideas, diagnoses, expectations, frustrations and possible ways to improve things. People reported that they had seldom communicated with each other so deeply on these TNG-topics. Within TNG we stimulated to work on the general need to improve things and to do it together. During the conference personnel officers and managers from the rank and file worked together on a plan for strategic improvements. Working together towards a common goal in a new setting, in a safe context seemed to be a very good way to stimulate commitment, mutual respect and understanding.

The conference was organized by outsiders, who were increasingly recognized as facilitators and valid conversation partners. This was obtained by continually stimulating the use of 'the process and context characteristics', by addressing people in their own languages, e.g. by referring to activities and forms in the abbreviations and the code names used by the TNG and if necessary, by proposing and explaining frameworks and concepts that the client can use and adapt to its own situation and then demonstrate their added value.

The seven above-mentioned 'process and context characteristics' were gradually proposed and realized and were clear for the participants. These 'process and context characteristics' should not be considered accurate prescriptions of activities or cause result-relationships but they were clear enough for these managers to use as guiding principles in interactions.

Besides these 7 factors, the following aspects were often mentioned as being 'helpful'. During the conference the managers worked together in *cross-functional groups*, all together in the *same room and at the same moment*, towards the only truly important thing: the better functioning of HRM of TNG . This created a lot of positive energy; they almost 'forgot' about their own frustrations and put aside their prejudice against other individuals or groups . The immediate presence of important decision makers made it possible to view problems from different angles and in all aspects. All participants brainstormed together about ways to overcome the existing organizational barriers caused by the strict division of labor. These factors "working with cross-functional groups, all together, at the same moment and in the same place" was reported over and over again as very valuable. This phenomenon has already been described by Weisbord as: "The search conference or getting the whole system in the room, links values and action in real time. It promotes productive workplaces by using more of each persons reality" (Weisbord, 1987, p. 295)

Conclusions and recommendations

This study is a snapshot of TNG in a continuing, an ongoing organizational change process. If one looks back at 'the process and context factors' we tried to install, one might consider them as rather basic recommendations, as common sense: (1) Introduction and support of top management (2) Taking the viewpoints of other parties seriously (3) Looking for a common value or goal of real interest to all parties (4) Reaching joint agreement on the directions and the operational procedures to be taken in the next step (5) Openness in communication. (6) Reframing information, creating openings for viewing things from different angles. (7) Gradual recognition of the role of external facilitators, action-researchers and valid conversation partners and (8) working with cross-functional groups all together, at the same moment and in the same place. But this doesn't mean that these recommendations are common practice! Quite a few projects that were going on at TNG created frustrations and got stuck, possibly because the above-mentioned process characteristics were not applied....

How this research contributes to new knowledge in HRD

The conclusions may not seem to be very innovative at first sight. It is astonishing that a contribution to scientific knowledge can lay in the search of means and methods needed to put scientific knowledge into practice. Maybe we need to do more research and refine these 'context and process characteristics' or maybe find other forms to overcome the knowing doing-gap. Indeed, by studying and doing research we gain knowledge. But gaining knowledge is not the problem, it's the 'doing' part that causes problems. It is also striking that the problems we worked on are also familiar to our own university as well as other universities and organizations.

HRD-academics need the courage to be unconventional en need to be convinced that research on overcoming knowing-doing gaps is not an inferior branch of research. On the contrary, it's necessary and very useful indeed!

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[1] Note: This research is situated in the IPD project (Improvement Personnel Department) within the context of MHO projects, in a Dutch Bilateral development co-operation, between Nuffic (with Jan Verhagen) and TNG.

Reframing Continuing Professional Education: Innovations in Theory and Practice

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The intent of this innovative session is to provide a discussion forum for practitioners and researchers to help set new directions for the field of CPE across multiple professions. In this session participants will: 1) Analyze the development of the field of CPE, 2) Contrast significant issues, trends and research studies that are shaping and changing the field; and, 3) Propose a vision of the future of CPE research and practice.

Keywords: Continuing Professional Education, Professional Practice Development, Professional Learning

Session Description

The purpose of this session, structured as a practitioner forum, will be to initiate an analysis and discussion of the current nature and scope of continuing professional education (CPE), raising awareness of the trends and issues likely to affect the field in the future. CPE is being influenced by changes in our society, workplace, professional practice, as well as changes in learning theory, evaluation practice, and ethical responsibilities. The session will focus on linking new research and theory to the practice of CPE by analyzing trends affecting CPE, learning and professional practice, including workplace learning, evaluation, market realities, and finally, ethical decisions in CPE.

Purpose

Continuing professional education (CPE) has undergone significant change in the past decades; and yet, there is little professional discussion that assists practitioners in developing an expanded understanding of the new issues, developing trends, or future needs of this important segment of adult education and human resource development. In his classic text, Continuing Learning in the Professions, Houle (1980) stated: "The task for this generation is to move ahead as creatively as possible, amid all the distractions and complexities of practice to aid professions . . . constantly to refine their sensitiveness, enlarge their concepts, add to their knowledge, and perfect their skills so that they can discharge their responsibilities within the context of their own personalities and the needs of the society of which they are collectively a part." (p. 316).

Even though these words were written 20 years ago, the need for CPE as a field of practice to move ahead creatively still exists. In many ways, the field of CPE is even more fragmented now than in Houle's (1980) conceptualization. CPE providers tend to identify with and practice within their individual professions rather than within the general field of human resource development. Yet, there is a great deal that CPE providers can learn collaboratively from each other regardless of the specific profession to which they belong.

The intent of this innovative session is to provide a discussion forum for practitioners and researchers to help set new directions for the field of CPE across multiple professions. This innovative session has been designed in three sections. These sections will: 1) Provide a brief review of the development of the field of CPE; 2). Analyze

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significant issues, trends and research studies that are shaping and changing the field; and, 3). Propose a vision of the future of CPE research and practice.

Goals

During this innovative session the participants will:

- Discuss the development of the field of CPE and link this to current theory and practice.
- Discuss current issues and future trends in the field of CPE and analyze the research implications of these issues and trends.
- Propose future directions for practice, research, and theory development in CPE.
- Explore theoretical and practice connections between CPE and HRD.

Content

In the first part of this innovative session, presenters will examine the development of CPE and discuss trends and issues currently shaping the field. Presenters will analyze how workplace education, distance education, collaborative practices, and regulatory agencies are shaping current practices. Presenters then identify critical issues that must be addressed in building new creative systems of continuing education.

The second section of this innovative session will analyze issues and trends within the field of CPE. The presenters will focus on models that facilitate the development of professional expertise and suggest a new model of learning in and from the workplace. Presenters will also offer a new way to understand how professionals learn within the context of their professional practice. Presenters will then challenge the field of CPE to begin developing a unique evaluation theory that can be applied in the practice of CPE. Drawing from cross-disciplinary evaluation theory, presenters will identify practical methods by which practitioners can conduct comprehensive program evaluation for the purpose of improving professional service. Presenters will then outline how the interplay between program planning and marketing is essential for CPE providers in highly competitive markets. They offer practical approaches to marketing based on their extensive experiences in the field of CPE.

The final section of this innovative session will focus on setting future directions for the practice and research of CPE. Presenters will challenge CPE providers to understand professional practice in a new way. Presenters will argue that professionals are losing decision-making authority and professional autonomy as systems, rather than individuals, assume control of professional practice. Finally, the presenters will synthesize information discussed and propose a reframed vision for the field of CPE.

Format

Presenters will have approximately 10 minutes to lay the ground work for the concepts of their presentation as outlined in the content section of the proposal. Following the brief presentations, the participants will be divided into three groups to further discussion and analyze:

- Development of the field of CPE and implications for research and practice
- Issues and trends in CPE and implications for research and practice
- Future directions for practice, research and theory

The session moderators will integrate and summarize the discussion at the conclusion of the symposium. This summary will be posted on the web following the conference and symposium participants will be invited to continue in the discussion.

Presenters

- *Barbara J. Daley*, Adult and Continuing Education Program, Department of Administrative Leadership, University of Wisconsin, Milwaukee
- *Vivian W. Mott*, Adult and Counselor Education, Department of Counseling & Adult Education, East Carolina University
- *Ruth Craven*, Educational Outreach, University of Washington
- *Judith M. Ottoson*, Andrew Young School of Policy Studies, Georgia State University

Organizational Performance: The Future Focus of Leadership Development Programs

Doris B. Collins
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This research analyzes 54 leadership development studies from 1984 – 2000 and determines the extent to which the intended outcomes of those leadership development programs focus on organizational performance. This research used Burke and Day's 1986 meta analysis on managerial training as its starting point. Burke and Day's study found mixed results on the effectiveness of training programs. This research confirms that organizations have begun to take a more systemic approach to leadership development.

Keywords: Leadership Development, Organizational Performance, Meta Analysis

Many organizations are concerned about leadership inadequacies of their employees, and as a result, are committing to education and training that deepen the skills, perspectives, and competencies of their leaders. Gibler, Carter, and Goldsmith (2000) indicate that annual budgets for leadership development programs will continue to grow throughout the next decade as companies "recognize the shortage of talented managers, the importance of developing bench strength, and the need to widen perspectives in order to compete globally" (p. xii). Most organizations recognize that effective leadership is one of the most powerful competitive advantages an organization can possess. However, research reported in the literature on the effectiveness of leadership development programs is sparse, which leads one to believe that relatively few organizations are evaluating the effectiveness of their leadership development programs. That leadership development efforts will result in improved leadership skills appears to be taken for granted by many corporations, professional management associations, and consultants (Sogunro, 1997).

Most organizations today are facing a multitude of outcome-based demands on their time and resources – demands that stem from a variety of driving forces including federal mandates, increased competition, and national accreditation standards. Leadership development outcomes are even more important in global organizations than in traditional organizations because of dual reporting structures, proliferation of communication channels, overlapping responsibilities, and barriers of distance, language, time, and culture (Friedman, 2000). Leadership development programs that are linked to the organizational mission, strategy, and goals are likely to produce outcomes valued by the organization (Rummler &Brache, 1995).

For this research, outcomes of leadership development programs are defined in terms of organizational performance. An *outcome* is defined as " a measurement of effectiveness or efficiency (of the organization) relative to core outputs of the system, subsystem, process, or individual" (Holton, 1999, p. 33). ***Leadership development*** is defined as "every form of growth or stage of development in the life-cycle that promotes, encourages and assists the expansion of knowledge and expertise required to optimize one's leadership potential and performance" (Brungardt, 1996, p. 83). Leadership development studies include the full range of leadership experiences as suggested by McCauley, Moxley, & Van Velsor (1998) such as mentoring, job assignments, feedback systems, on-the-job experiences, developmental relationships which include exposure to senior executives, leader-follower relationships, and formal training programs.

The purpose of this research is to analyze the outcomes of available leadership development studies from 1984 – 2000, after Burke and Day's meta-analysis (1986), to determine if leadership development programs have changed from a focus on individual performance to a focus on performance at the organizational level (Rummler & Brache, 1995). It uses a "macro" lens that incorporates the full range of leadership development programs (McCauley et al., 1988), the Results Assessment System evaluation model (Swanson & Holton, 1999), and a new high-performance leadership competency model (Holton & Naquin, 2000). The high-performance leadership competency model provides the only known definition of leadership development outcomes that includes "improving performance" as a core dependent variable, or an explicit outcome of leadership. Hopefully, this research will provide some theoretical undergirding for future research in determining the underlying reasons organizational-level outcomes do not appear as the major driving force behind design and implementation of

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leadership development programs. This research also analyzes the changes in content of the leadership development programs, the types of leadership development intervention categories, and the intervention instruments used.

Burke and Day's Meta-Analysis of Managerial Training

No comprehensive analysis of managerial or leadership training has been done since Burke and Day's (1986) cumulative analysis on managerial effectiveness. However, the focus of managerial leadership has shifted in the past decade to strategic leadership because of increasing global competitiveness, continuous restructuring activities, demographic changes in the workforce, customer demands, and rapid technological changes (Gibler et al., 2000; Hooijberg, Hunt, & Dodge, 1997). Leadership in a global organization requires that leaders delegate decision making, geographically disperse key functions across units of different countries, de-layer at the organizational level, de-bureaucratize formal procedures, and differentiate work responsibilities and authority across networked subsidiaries (Friedman, 2000). In addition, studies on leadership theories and practices introduced into the literature since 1986, such as transformational leadership (Bass, 1985), team leadership (Hackman & Walton, 1986; Larson & LaFasto, 1989), 360-degree feedback (Lepsinger & Lucia, 1997), and on-the-job experiences (McCauley & Brutus, 1998) have also spurred new content areas in leadership development research.

Leadership Development Literature

Volumes of literature exist on the concept of *leadership*, but in comparison, the literature on *leadership development* and its impact is minuscule. Research indicates that little is known about what outcomes or knowledge, skills, or processes in leadership development programs contribute to organizational performance (Campbell, Dunnette, Lawler, & Weick, 1970; Fiedler, 1996; Lynham, 2000). Performance improvement at the organizational level (Rummler & Brache, 1995) is typically inferred, implied and assumed as an outcome of leadership and leadership development. Performance improvement (Torraco, 1999) and high-performance leadership competencies (Holton & Naquin, 2000) have recently been linked and provide a potential focus for leadership development programs, which will make it easier to measure outcomes. Yet, despite the immense amount of investment in leadership training on the part of corporations and governments, there is little evidence that such training results in a more effective leadership behavior (McCauley et al., 1998). Hopefully, the results of this research will help us better understand leadership development programs and their contribution to organizational performance.

Method

Qualitative research has been conducted to determine studies that involve a leadership development experience, which includes managers, leaders, and/or executives. Studies for this analysis were located by conducting a computer search with ABI Inform, UNCOVER, scanning bibliographies, and reviewing journal articles and proceedings from the annual conferences for the Society of Organizational and Industrial Psychology and the Academy of Human Resource Development. Also included are all applicable leadership studies cited in *The Impact of Leadership* by Clark, Clark, & Campbell (1992). In the computer search, key words used include *outcomes, impact, effectiveness*, and *influence* in combination with the following subject areas: *leadership development, management development, managerial training, management training, executive development, leadership education, leadership, management education* and *management skills*. A review of approximately 1000 titles, abstracts, and/or articles provided 54 studies that meet the sample criterion defined for this analysis. Most studies were located primarily in management and psychology journals.

Once studies were located and reviewed, codes were provided for the content area, the category of leadership development intervention, and the intended outcome of the leadership development experience. The management level of the individuals in the sample, the size of the sample, the type of leadership development intervention, and the instrument(s) used to measure outcomes were also recorded. To validate the coding scheme, each article was reviewed a second time and the coding choice was compared with the first review to ensure similarity. In addition, two doctoral-level human resource development students read four of the most recent studies and independently coded the sample studies. One rater disagreed in only one coding element, but the raters discussed and agreed on the appropriate coding.

Definition of Leadership Development Content Areas

The high-performance leadership model (Holton & Naquin, 2000) provided the base for the leadership development content areas in order to more appropriately reflect leadership in today's high-performance organizations. Therefore, team management (Baker, Walsh, & Marjerison, 2000) and strategic leadership competencies (Collins, Lowe, & Arnett, 2000), which enable high-performance leaders to lead strategically in an environment of continuous change, were incorporated. Content areas selected are Employee Development; Employee Performance; Human Resource Systems; Job and Work Design; Strategic Leadership; Supportive Environment; and Team Management (Baker et al., 2000; Collins et al., 2000; Wilson, Boudreaux, & Edwards, 2000). Definitions of content areas are as follows:

- *Employee Development (ED).* Building nurturing relationships that help employees to reach their highest potential.
- *Employee Performance (EP).* Execution of job behaviors that accomplish organizational goals including the establishment of clear employee goals and use of motivation to build employee commitment.
- *Human Resource Systems (HRS).* Linkage of the right employee to the right job and human resource policies and procedures to job activities. Evaluation of the organization's policies and procedures in relation to employee performance and development of leaders whose values closely match the organization.
- *Job and Work Design (JWD).* Determining an organizational structure to meet goals and structuring jobs so individuals can achieve personal, process, and organizational goals.
- *Strategic Leadership (SL).* Transforming the organizational culture and institutionalizing change to promote continuous organizational improvement. Communication of strategy and performance information to relevant subsystems. Collaborative efforts that lead to valued outcomes.
- *Supportive Environment (SE).* Building organizational systems (personnel, technology and control) with an open atmosphere and adequate resources, that enables effective performance.
- *Team Management (TM).* Development and leadership of strong, effective organizational teams.

Definition of Intervention Categories

Each leadership development study was assigned a category based upon on the full range of leadership development experiences described by McCauley et al. (1998) with one additional category assigned for on-the-job-experiences. Definitions of intervention categories used in this research are:

- *Developmental relationships (DR).* Experiences where another individual influences the manager's personal development such as one-on-one mentoring or coaching.
- *Feedback Intensive Programs (FIP).* Data fed back to participants in a safe, supportive environment such as 360-degree feedback and exclusive of assessment in formal feedback settings.
- *Formal Training Programs (FT).* Structured training programs designed to develop the individual employee.
- *Job Assignment (JA).* Job experiences scheduled for a definite period of time that push managers out of their comfort zone, such as redesigning a system or part of a job or serving on a temporary task force.
- *On-the-Job Experiences (OTJ).* Job experiences where managers learn, grow, or undergo personal change as a result of the experiences (McCauley & Brutus, 1998).
- *Structured Experiences (SE).* Structured goal-directed, live-action, task-based interactions such as leaderless group discussions, simulations, and targeted exercises.

Definition of Measurement Instruments

Measurement instruments varied greatly among the studies identified for this analysis and included both quantitative and qualitative measurements. Some studies used organization-constructed instruments for quantitative analysis. Other studies used instruments designed externally as SYMLOG (Systematic Multiple Observations of Groups), PMLX (Project Leader-Member Exchange Scale), WGCTA (Watson-Glaser Thinking Appraisal), LISERL, WABA (Within and Between Analysis), Argyris' Learning Model or MLQ (Multifactor Leadership Questionnaire).

Definition of Leadership Development Outcomes

The Results Assessment System model (Swanson & Holton, 1999) was used to determine if the results of the studies are at a performance or learning outcome level. Performance-level outcomes are typically outcomes at either the organization or group level while learning outcomes are typically at the individual level of the organization (Rummler & Brache, 1995), but also can serve as a measure of learning at the group level.

The Results Assessment System (Swanson & Holton, 1999) specifies three outcome levels with two outcome categories delineated for each respective outcome level. The *performance* outcome level is categorized as either *system* or *financial* outcomes while the *learning* outcome level is categorized as either *expertise* or *knowledge* outcomes. The *perception* level will not be covered in this research. The performance - system level includes mission-related outputs in form of goods/services, having value to the customer, that are related to the core organizational, work, process, and group or individual contributor to the organization. The performance - financial level is determined by the outputs of goods/*services* converted into a money and financial interpretation. The learning - expertise level measures human behaviors that have effective results and optimal efficiency acquired through study and experience within a specialized domain. The learning - knowledge level assesses mental achievement acquired through study and experience.

Results

The results shown in Table 1 indicate that 16 (30%) out of the 54 recorded studies had performance-level outcomes. Thirteen studies (81%) with performance-level outcomes measured system performance while three (19%) addressed financial performance as the outcome variable. Another interesting finding was that four (7%) out of the entire group of 54 studies had team or group effectiveness as the outcome variable. The results also show that 38 studies (70%) had a learning-level (knowledge or expertise) outcome. In contrast, Burke and Day (1986) found that only two (3%) out of 70 studies were concerned with performance and 68 (97%) with learning. To compare the results, 30% of the studies in the current analysis have performance-level outcomes whereas the Burke and Day study reflects only three percent with performance as the outcome variable. Just as Burke and Day's (1995) analysis, the current research also found mixed results on the success of the leadership development intervention. A typical finding in the studies was that independent variables in some studies reflect no correlation while in other studies there was a strong correlation between variables. Three studies in the current research had overall negative findings (Facteau, Facteau, Schoel, Russell, and Poteet, 1998; Moxnes and Eilertsen, 1991; Thoms and Klein, 1994).

Table 1. Leadership Development Content/Outcome Summary

Content Category	Number of cases	Outcome Measurement			
		Performance		Learning	
		System	Financial	Expertise	Knowledge
Employee Development	11	0	1	7	3
Employee Performance	5	0	0	3	2
Human Resource Systems	6	1	0	4	1
Job and Work Design	2	0	0	2	0
Strategic Leadership	18	8	2	7	1
Supportive Environment	8	2	0	6	0
Team Management	4	2	0	2	0
TOTAL	54	13	3	31	7

Results in Table 1 show that Strategic Leadership was the most frequently researched leadership development content area (n = 18, 33%), followed by Employee Development (n = 11, 20%), and Supportive Environment (n = 8, 15%). Seventeen studies (32%) fell in the remaining content areas identified in this analysis. That Strategic Leadership has become a focus of leadership development programs is not surprising as current organizations must continually function in less stable, continually changing environments than those in studies reported in the Burke & Day (1986) meta-analysis.

In Table 2, the results indicate that formal training (n = 22, 41%) continues to be the primary category for leadership development intervention. Job assignments (n = 17, 32%) was second out of the six categories of leadership development interventions. The intervention categories found least in the assessment research are feedback intensive programs, on-the-job experiences, and structured experiences.

Table 2. Leadership Development Intervention Summary

Intervention Category	Number of cases	Outcome Measurement			
		Performance		Learning	
		System	Financial	Expertise	Knowledge
Developmental Relationships	5	1	0	4	0
Feedback Intensive Programs	4	0	0	3	1
Formal Training	22	3	1	16	2
Job Assignments	17	7	2	6	2
On-the-Job Experiences	4	0	0	2	2
Structured Experiences	2	2	0	0	0
TOTAL	54	13	3	31	7

The results indicate that multiple constructs were used to evaluate the effectiveness of the leadership development programs in many (n=29, 53%) of the studies in this analysis. Often a qualitative method as an observation, interview, focus group, or self report was used in combination with an internally or externally-developed survey instrument. Another interesting finding was that five studies (9%) appeared to be totally qualitative (Bolman & Deal, 1992; Gengler & Riley, 1995; Kovner, Channing, Furlong, Kania, & Politz, 1996; Marson & Bruff, 1992; Spreitzer, McCall, & Mahoney, 1997). An analysis of the instrumentation used per content category revealed that the majority of instruments were surveys developed outside the organization (n = 28, 52%), and approximately 20 different instruments used. Measurement instruments developed within the organization were used in 15 studies (28%). Other types of instruments found in the analysis were observations, audiotape, simulations, feedback systems, and task rankings.

Table 3. Leadership Development Instrumentation Summary

Instrument Category	Number of cases	Content Areas						
		ED	EP	HRS	JWD	SL	SE	TM
Organization-developed survey	15	4	2	0	1	6	1	1
Externally-developed survey	28	4	2	6	1	7	6	2
Observations/Interviews	1	1	0	0	0	0	0	0
Skills tested in work environment	2	2	0	0	0	0	0	0
Audiotape	1	0	1	0	0	0	0	0
Multiple rater assessment	1	0	0	0	0	1	0	0
Organization administrative change	2	0	0	0	0	2	0	0
Feedback system	2	0	0	0	0	0	1	1
Task rankings	1	0	0	0	0	1	0	0
Self reports	1	0	0	0	0	1	0	0
TOTAL	54	11	5	6	2	18	8	4

The results indicate that instruments developed outside the organization were used more often in the Human Relations Systems and Strategic Leadership content areas than in studies from other content areas. See Table 3 for analysis of instrumentation. Examples of externally developed instruments used in each of the content areas are as follows:

- *Employee Development (ED).* Multifactor Leadership Questionnaire (MLQ), Management Skills Profile (MSP), Management Development Questionnaire (MDQ), and Leadership Effectiveness Adaptability Description (LEAD-Self).
- *Employee Performance (EP).* LISERL VII, Survey of Management Practices (SMP), California Psychological Inventory (CPI), and MSP.

- *Human Resource Systems (HRS).* The Multifactor Officer Questionnaire (MOQ), Leader-Member Exchange (LMX), Leadership Styles Inventory (LSI), LEAD, MLQ, MSP, and LISERL.
- *Job and Work Design (JWD).* Watson-Glaser Critical Thinking Appraisal (WGCTA) and Kolb's Adaptive Style Inventory.
- *Strategic Leadership (SL).* Leadership Behavior Questionnaire (LBQ), Argyris' Learning Model, Myers-Briggs Training Instrument (MBTI), Repertory Grid Technique, Systematic Multiple Observations of Groups (SYMLOG), Hofstede construct, and LDQ.
- *Supportive Environment (SE).* The Vroom-Yelton model, LMX, MLQ, and SYMLOG.

Summary

Even though leadership development programs are pervasive (Burke & Day, 1986), research on the effectiveness of leadership development programs is sparse. It appears that organizations are not evaluating and reporting the results of their leadership development programs. However, performance-level outcomes are more critical than ever because organizations are facing a multitude of outcome-based demands on their time and resources,. Therefore, organizational level outcomes should be the driving force behind the design and implementation of all leadership development programs.

This research shows that there is a trend toward organizational performance as the outcome of leadership development programs. The 1986 Burke and Day meta-analysis of the effectiveness of leadership development programs indicated that only three percent of the studies were at the organizational level while 30 in this analysis measured organizational variables.

This research also shows that the content of leadership development programs has changed. Strategic leadership and team management skills are the most distinctive changes in the content of leadership development programs since Burke and Day's (1986) study. Strategic leadership was the most frequently found topic of programs in this analysis and this is not surprising as the fluid, evolving, dynamic networks of today's global organization dictates the need for visionary leaders with a different set of leadership skills (Pucik, 1997).

While formal training programs remain prominent leadership development venues, this research proves that other types of developmental programs are prevalent. Examples of leadership development programs found that did not occur in Burke and Day's (1986) research include job assignments, feedback intensive programs, mentoring, and on-the-job experiences. While a report on the effectiveness of these types of programs occur occasionally in the leadership development research, it is obvious from this analysis that the outcomes of these experiences are not assessed as often as formal, structured training programs. These programs are likely not assessed because characteristics of these developmental job experiences cannot be expressed in objective features.

Future Research Issues in Leadership Development

Leadership development is a young but growing field that we still know very little about. Consequently there are many voids in the literature that are open to future research. Four of those areas are defined in the paragraphs that follow.

Most leadership models have been developed for an era of a more stable, predictable environment. High-performance global organizations embrace continuous change as a core value (Collins et al., 2000). Therefore, organizations will need leadership that is "able to think and act differently, and be able to integrate critical thinking into practice" (McCauley et al., 1998, p. 571). Because organizations will shift towards greater complexity, global competition, continuous quantum change, and collaborative team orientations, more evaluations based on the high-performance leadership competency model (Holton & Naquin, 2000) are needed to adequately depict leadership development outcomes of future global organizations where performance is linked to strategy.

How future leaders will impact the role of team leadership is virtually unknown. Leadership appears to be undergoing a change that is erasing the distinction between leaders and followers and organizing around teams (McCauley, Moxley, & Van Velsor, 1998). The idea of leadership will be thought of as reciprocal connections of people working together. Future research should focus on outcomes of leadership development experiences that increase team performance.

There is a deficiency of real scholarly knowledge about leadership development. More research is needed to fully understand leadership development. A replication of Burke and Day's meta-analysis could provide additional knowledge about leadership development and also provide a theoretical undergirding for future research. Also, a standardized assessment instrument should be developed by researchers to assist organizations in performing evaluative studies that will adequately measure performance at the group, team, or organization level (Rummler &

Brache, 1995). HRD should take the lead in developing appropriate performance-level evaluation methods. The top management of organizations has too many demands on their time and does not have the theory and research-based expertise necessary to accomplish the task.

Leadership requirements of future global organizations are not yet understood. HRD practitioners must understand the changing and complex, overlapping skills needed for competent leadership requirements of future global organizations. Therefore, strategic leadership competencies for a global environment should be incorporated into future evaluative studies so as to understand what is known about the field across multiple organizations and countries.

Conclusion

For leadership development programs to be truly effective they should add value to the entire organizational system at all of the core levels: organization, group, and individual. This research proves that recent leadership development programs have begun to focus on enhancing system (organizational) performance. An organizational approach should become the future direction for leadership development programs as it integrates programs/systems and measures the impact. Approaching leadership principles at the organizational system level will allow organizations to meet the adaptive challenges of an increasingly more complex environment. However, completion of more well-designed, thoroughly-reported empirical studies are needed to provide the necessary data to support that leadership development programs truly enhance organizational effectiveness.

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Note: Leadership development studies included in the research analysis are noted with an asterisk.

Hidden Dimension of Leadership Success: Implications for Building Effective Leaders

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Leadership development, a component of Human Resource Development (HRD), is becoming an area of increasingly important practice for all organizations. This theory paper proposes that the hidden dimensions of successful leadership are personal credibility and self-efficacy. A successful leader in this model is defined as one who can inspire others and turn aspiration into action to accomplish business results. The model illustrates that as leaders fulfill this business goal, credibility x self-efficacy is the basis.

Keywords: Leadership Development, Action Learning, Leadership

The Problem

Having worked in leadership development for a number of years, both in the public and private sector, I have always wondered why our programs fail to develop effective leaders. Development programs seem to improve skills and competencies and increase self-awareness. Participants state they enjoy our programs and find them meaningful. Yet, bottom-line business results do not improve over the long run and staff continue to report problems with management valuing and involving them in the work of the organization. Like most traditional leadership programs, our programs at Los Alamos National Laboratory start with competencies and a focus on the individual.

At the Laboratory we have identified a set of leadership and management competencies that we use to assess, develop, and evaluate our management staff. To determine the impact of our leadership development programs we use after course participant and supervisor feedback, upward performance appraisal results, a yearly organizational climate survey, and individual performance appraisals. All but the after course evaluations indicate that the impact desired, creating effective leaders, is negligible at best.

Thinking about this situation and the input and output model, I think something happens at the through put stage when managers lead or participate in our leadership development programs, that is not competency related or environmentally dependent, which makes an individual an effective leaders. It is something implicit rather than explicit, and I believe it is personal credibility and self-efficacy (belief in self as a capable leader).

Supporting this proposition is the fact that, in our changing world, the leaders of the future will be known less for what they say and more for what they deliver, less by what they control and more by what they shape, and less by goals they set and more by the mind-sets they build - (Ulrich, 1996). To be able to accomplish these behaviors, a leader needs to posses substance as well as competency. Workers will no longer follow a manager because of positional power as they did in the past. Our future leaders must not only inspire but must be able to turn aspiration into action through the people they lead. "Followership" is no longer a guarantee just because one has a management title.

This paper proposes that two "hidden" dimensions, personal credibility and self-efficacy, are essential ingredients to gain "followership". Both of these elements have more to do with substance than with form. Traditionally, we have concentrated our leadership development programs on form, e.g. competency development, and have done little to enhance substance, e.g. values, beliefs, actions, belief in self. Substance is what makes an individual one who is worthy to work in an organization, privileged with the power to manage and inspire others. I'm proposing herein that we need to provide leaders with opportunities to develop substance by enhancing their personal credibility and self-efficacy through our leadership development programs.

Because of the relationship between personal credibility and self-efficacy and a leader's ability to lead, an assumption of this approach is that by designing our leadership development programs to enhance these two dimensions, bottom-line business results will improve. Another assumption is that this improvement in business result has important implications for the success of our leadership development programs.

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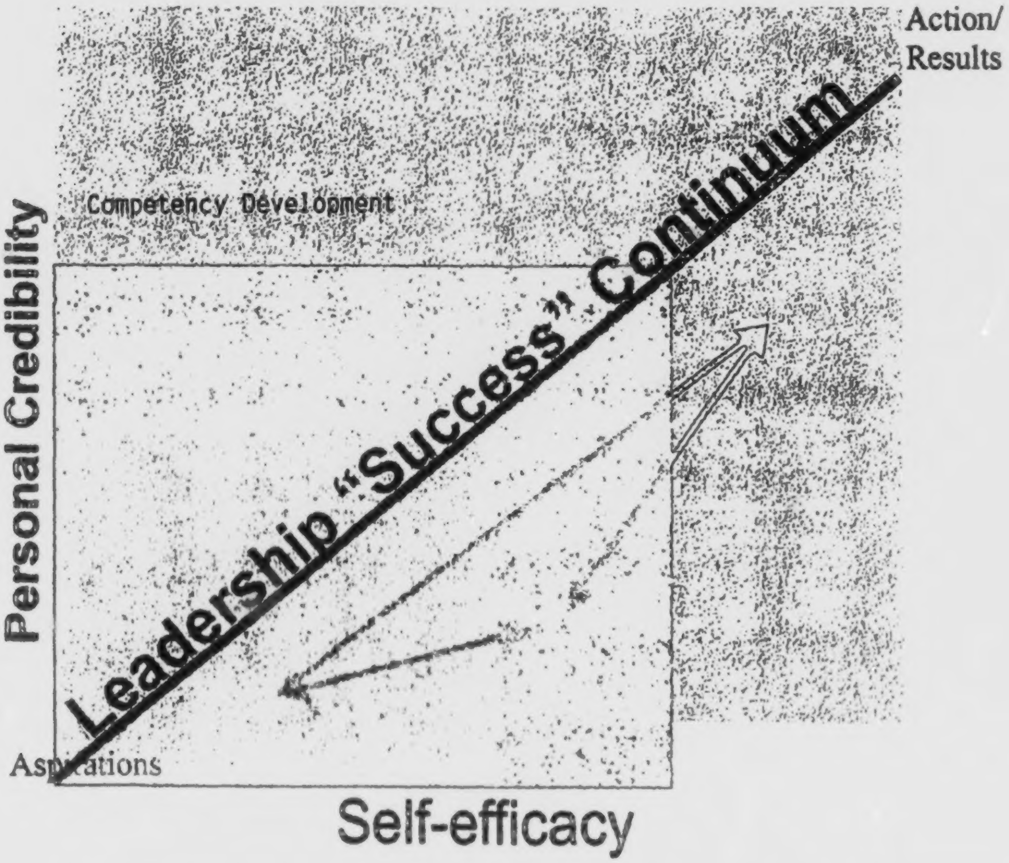
A Proposed Model

The proposed Leadership Success Continuum Model is based on the assumption that credibility of action is a significant determinant of whether a leader will be followed over time. Without personal credibility a leader cannot lead. Additionally, the proposed theoretical model is built on the assumption that without a belief in oneself as a leader, the roles and tasks of leadership become overwhelming and conviction for the task diminishes. The model, outlined in Figure 1, indicates that as personal credibility and self-efficacy increase, leadership effectiveness expands.

The theory is that a successful leader possesses a high degree of personal credibility and self-efficacy; while a leader, not characterized as successful, possesses a low degree of personal credibility and self-efficacy.

A successful leader in this model is defined as one who can inspire others and turn that aspiration into action to accomplish business results. This is accomplished through creating vision, building commitment, improving team learning and results, and developing and enabling others for success. To accomplish these actions, leaders not only need the competency or know how to make this happen but they need the substance to "cause" people to follow their vision and direction.

Figure 1. The Leadership "Success" Continuum



The model implies that without personal credibility, as defined by those who are to follow, and a belief in oneself, the leadership actions necessary to lead others in the accomplishment of organizational, business, or spiritual results will not impact as successfully.

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Figure 1 also illustrates that as leadership fulfills the goal of turning aspiration into action, personal *credibility x self-efficacy* is the basis. There is implied synergy in this model based on the assumption that belief in self and others' beliefs in you, the leader, compounds success and desired result/action. Another synergistic aspect implied in the model is that as results are achieved, personal credibility and self-efficacy increase. Also, as indicated by the arrows in Figure 1, as personal credibility and self-efficacy fluctuate, success in turning aspiration into action and results also varies.

Critical Questions and Methodology

In proposing this theory, key questions to be answered include:

1. What does the literature say about self-efficacy and personal credibility as "influencers" of behavior?
2. Does the literature indicate a connection between personal credibility and/or self-efficacy and successful leadership?
3. What leadership development methods are being used or could be used to develop personal credibility and self-efficacy?
4. Is there sufficient support in the literature to justify that there are dimensions beyond competency that need to be developed in our leaders?

A qualitative literature review, coupled with an analysis of current theory and research to determine and extract model related aspects, yield the results discussed in the next section.

Review/Analysis Findings

The Current Thinking

Credible leaders have the personal habits, values, traits, and competencies that engender trust and commitment from those who take their direction- (Ulrich, 1996). As we move from the machine models of work into the era of knowledge workers, loyalty can no longer be obtained by the paycheck- (Drucker, 1995). Instead, management becomes a social function in which relationships are key- (Wheatley, 1992). To inspire loyalty and commitment from the knowledge worker, leadership credibility is a major determinant as is the willingness of leaders to share power by allowing workers exceptional opportunity for putting their knowledge to work. (Drucker, 1995) Credibility of action is the single most significant determinant of whether a leader will be followed over time- (Kouzes and Posner, 1995).

Credibility comes from the alignment of our values, beliefs, and actions. In other words, leaders model their values and beliefs through their actions. Leaders with personal credibility say what they mean and do what they say. Credible leaders can be counted on. Block quotes Martin Buber saying, - *"There are three principles in man's being and life, the principle of thought, the principle of speech, and the principle of action. The origin of all conflict between me and my fellow-man is that I do not say what I mean, and that I do not do what I say."* (1993, p. 238).

In a recent case study of over 400 respondents from four continents (America, Asia, Europe, Australia), Kouses and Posner (1995) measured what actions exemplified quality leadership. The top four actions, from both of their 1995 and 1987 surveys, included characteristics of personal credibility. These actions were honesty, forward-looking thinking, the ability to inspire, and competency. I would also add compassion and belief in others' abilities to accomplish results as key to personal credibility. Peter Block would add stewardship.

Stewardship according to Block is to hold something in trust for another (1993). In other words, stewardship is the willingness to be accountable for the well being of the larger organization by operating in service, rather than in control, of those around you. These characteristics of personal credibility come from the substance of the person and are exhibited through his or her actions.

Similarly, a person's dynamism doesn't come from special powers. It comes from a strong believe in a purpose and the willingness to express that conviction. Leadership has nothing to do with what we look like. It has everything to do with what we feel, what we think of ourselves- (Kouzes and Posner, 1995). In fact, Bandura (1986) has argued that whether or not people will undertake particular tasks or strive to meet particular goals depends on whether or not they believe they will be efficacious in performing the action. The stronger one's self-efficacy, the more one will exert effort and persist at a task.

According to Bandura's self-efficacy theory, decisions that people make about whether or not to attempt certain courses of actions and about how long to pursue them, are to an important extent determined by judgements of personal efficacy (1991). The correlation between self-efficacy and health related outcomes in the areas of smoking, pain management, cardiac rehabilitation has been established- (Holden, 1991). Studies have also established the correlation between parental self-efficacy and their children's academic abilities (Seefeldt, Denton, Galper, and Younoszai, 1999) and Bandura and others have established the correlation between student self-efficacy and academic achievement- (Bandura, 1993, Schunk, 1991, and Torkzadeh, Pflughoeft, and Hall, 1999).

Seemingly the literature indicates that these two dimensions, personal credibility and self-efficacy, are important attributes which improve a leaders ability to encourage others to action. Personal credibility inspires worker loyalty and direction and self-efficacy gives the leader the motivation to lead against, at times, hostile and challenging forces. People don't do extraordinary things unless they have the will to do so. Leadership is the act of mobilizing others to want to struggle for shared aspirations- (Kouzes and Posner, 1995). Interestingly, leaders who understands self-efficacy know that when the people they work with feel strong, capable and efficacious themselves extraordinary things can be accomplished.

Additionally, because personal credibility is key to the relationships we develop, the relational aspects of our work become key. More and more studies focus on followership, empowerment, and leader accessibility- (Wheatley, 1992). Ethical and moral questions are no longer fuzzy religious concepts but are key elements in our relationships with staff, suppliers, and stakeholders. As Barbara Wheatley states: "If the physics of our universe is revealing the primacy of relationships, is it any wonder we are beginning to reconfigure our ideas about management in relational terms?"- (Wheatley, 1992, p. 12). This emphasis on relationship elevates the primacy of personal attributes or the substance of the person into juxtaposition with personal competencies.

Reviewing the literature to look for implications for our leadership development programs a number of interesting possibilities emerged. For example, recent studies have found a strong correlation between task relevance and one's belief in one's ability to do the task- (Coffin and MacIntyre, 1999; Weiner, 1990). An implication of this study is that by increasing the task-relevance of the competency to be developed, self-efficacy can be enhanced.

Additionally, according to Bandura (1974, 1986), outcome expectations relate both to the learner's understanding of what activities are required to reach a learning goal and to their belief that the learning goal can be achieved and/or applied. Once success is achieved, self-efficacy is increased. In other words, success breeds success when expectations are clear. By focusing competency development on business results, task relevance can be increased which, in turn, increases application success and self-efficacy.

The literature also indicates that to develop leaders who feel unique, competent, secure, empowered and connected to the people around them, e.g. high self-esteem and self-efficacy, leaders need support and feedback in actual developmental job experiences. Leadership skills are developed; they are not usually basic cognitive abilities.

A Study Example

To illustrate this point, Robert Wood and Albert Bandura (1989) had working professionals manage a simulated organization. Participants had to match employee attributes to job requirements and master a complex set of decision rules in how best to guide and motivate their employees. Half the subjects were told that decision-making skills are developed through practice (and hence are acquired skills); the others were informed that decision-making skills reflect the basic cognitive capabilities that people possess (and hence are stable skills). Throughout the simulation, the subjects rated the strength of their perceived self-efficacy in getting the group they were managing to perform at various productivity levels. Those in the stable-skill group displayed a progressive decline in perceived self-efficacy, while those in the acquired-skill condition maintained their sense of managerial efficacy. Those in the stable-skill group were quite uncharitable in their views of their employees, regarding them as incapable of being motivated, unworthy of supervision, and deserving of termination. In contrast, those in the acquired-skill condition set more challenging goals in subsequent trials and made more efficient use of analytical strategies, because from their perspective errors didn't imply a basic cognitive deficiency.

Leadership Development as a Process

Applying the results of this study, it seems leaders and perspective leaders need practice in on-the-job experiences and need to be supported through planned placement, mentoring and coaching. Rather than being left to self-develop and apply learning in practice after assessment and competency development experiences, leaders need to be coached and mentored on the job. Job coaches can be other leaders and/or human resource development staff. By supporting leaders as they continue to acquire skills, the Wood and Bandura research study indicates this development will not only develop the self-efficacy of leaders, but will positively impact management expectations of employees and accomplishment of job goals and objectives.

David Bradford and Allan Cohen (1997) support the position that development needs to be a process rather than an event by stating that development needs to be continuous and intentional and is best accomplished through day-to-day interactions on the job. Similarly, Zenger, Ulrich, and Smallwood (2000) purport that mechanisms for follow-up and tools for holding people accountable, after competency development, need to be put in place for effective leadership development. When this occurs, they state, leadership development is transformed from an event into a process. In supported on-the-job experiences, leaders perform in real, pressured work situations. Here they learn to fail, try again, and succeed.

In real work situations one also exhibits and develops personal credibility. Because personal credibility is key to the relationships we develop, the relational aspects of our work are critical. To best assist managers in dealing with the relationship results of their personal credibility, it is helpful to see the manager in action on the job and provide appropriate coaching and mentoring. Rather than waiting for an organizational intervention after failure, proactive, planned on-the-job coaching should be part of the designed leadership development program.

Similarly, competencies make the most sense and are the most relevant to leaders if they are linked closely to results- (Zenger, Ulrich, Smallwood, 2000). For example, leaders who coach (competency) may create loyalty which *results* in retention of workers; may communicate an expectation of continual improvement that *results* in improvement in productivity; and, may create a work climate of open, direct, candid communication that could foster quicker problem resolution and *result* in projects that are more on-target. All of which increase personal credibility.

Based on this expanded view of leadership and leadership development, three generic diagnostic questions seem to emerge from the literature that can be used to assess leadership quality. These are:

1. *Personal credibility.* Does this leader have credibility with those with whom he or she works? Do individuals trust, respect, admire, and enjoy working with this leader? Do those who work with this leader as subordinates, peers, customers, or supervisors feel a personal and emotional bond with him or her?
2. *Self-efficacy.* Does this leader believe he or she can lead, e.g. shape a vision, create commitment to the vision, build a plan of execution, develop capabilities, and inspire people to the making things happen? Does this leader have conviction for the work he or she is inspiring? Does the leader have high expectations of him or her self, others, and for the business unit success?
3. *"Unit" business success.* Does this unit have high levels of productivity as measured by financials, customer satisfaction, employee morale? Do customers and suppliers have a high loyalty factor to the products and/or services of the unit? Does the leader have enthusiastic commitment to the unit and its business goals?

Recommendations for Implementation

Application of this model to leadership development programs implies a basic change in our curriculum philosophy and structure. First, we need to broaden our focus beyond competency development. In addition to developing competencies, we need to build learning opportunities that encourage our participants to reflect and explore the affects of their behaviors and decisions on others and business results. And, because of the relationship between successful completion of relevant tasks and self-efficacy, these reflection opportunities need to be job based.

Second, we need to think of our programs as a process of development rather than as an event for the substance elements of ourselves are not as readily apparent to us as are our skills. As a result, leadership development plans should ideally be developed to include such elements as job placements, assigned mentors and coaches, support/reflection networks, and education and training options. This longer term planning for leadership development will lend itself to building a belief in self through supporting and coaching success rather than by punishing failure. It will also support the synergy of personal credibility x self-efficacy which occurs when business results are successfully accomplished.

Finally, because broad based, systems feedback is important in the development of personal credibility, double-loop learning opportunities are key and need to be included as a major "design spec" in the development of reflection experiences.

Implications for Future Research

Leadership development theory focused on personal credibility and self-efficacy has interesting prospects. It builds on motivation and expectancy theory and seeks to incorporate recent schools of thought on leadership, participative management, and empowerment. In discussing the relationships among self-efficacy, personal credibility and leadership success, many assumptions were made which need to be further explored. The weak point of this theory is that it has a relatively narrow empirical base

For example, there is an assumed relationship between task relevance and self-efficacy but the strength of this relationship and whether or not it is one of parallel occurrence or causality needs to be explored.

Additionally, there are interesting ancillary relationships to be explored in future research initiatives. These include the ability to form relationships at work and personal credibility; commitment level and self-efficacy; empowerment and self-efficacy; emotional intelligence and self-efficacy; and, high expectations of self and others and unit business success. Research in these areas could lend important insights into the implicit components that form our substance, and, as such, assist us as we develop leaders for the future.

Current leadership development models have been built on Newtonian mechanics by searching for better methods to objectively develop leadership competencies (form). The new physics seems to cogently explain that there is not an objective reality and there are no formulas that describe "reality" (Wheatley, 1992). There is only what we create through engagement with others and with events (substance). This points to hidden dimensions that we must explore if we are to understand leadership; and, in better understanding the qualities of leadership, promote development.

This paper proposes that personal credibility and self-efficacy are two major elements of a persons substance and of a leader's ability to build relationships to accomplish business objectives. Without a high degree of both of these two dimensions, the literature and this theory seem to indicate, leaders may not be as successful.

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A Study of Leadership Roles, Styles, Delegation and Qualities of Indian CEOs

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This study identifies the effectiveness with which various leadership and managerial roles are performed by Indian CEOs. Using 360 Degree Feedback 26 CEOs were studied. They were good at managing their seniors, but weak in inspiring and developing their subordinates, culture building and long term goal setting. Their leadership styles were largely developmental. Delegation, activity level, positive thinking, communications, etc. were their strengths and reactiveness, irritability, low empathy, patience and participative nature were weak areas.

Keywords: Leadership , 360-Degree, Indian-CEOs

Leadership has been defined in so many ways and by different authors and experts. Tichy and Cohen (1997) the authors of "Leadership Engine" points out: " The scarcest resource in the world today is the leadership talent capable of continuously transforming organizations to win in tomorrow's world. The individuals and organizations that build Leadership Engines and invest in leaders developing other leaders have a sustainable competitive advantage." (p.8)

According to Tichy and Cohen:

- Winning leaders with a proven record take direct responsibility for developing other leaders
- Winning leaders can articulate and teach others how to make the organization successful. They tell stories about their past and explain their learning experiences and beliefs
- They have well-developed methodologies for teaching others.
- Leadership talent can be nurtured and it is never too late or too early to develop one's own leadership abilities, and talent of others.
- Leaders are normally viewed as those people who motivate one or more individuals or groups of people to do a specific thing.

Various studies and recent literature (Tichy and Cohen, 1997, Hesselbein and Cohen, 1998, Goleman, 1998, Smart, 1998, Ghosal and Bartlet, 1997, Pfeffer, 1998 Lee, 1997 Peters, 1997) on leadership indicate the following:

- Leadership is critical for Business development or for any form of development. Leadership is no more limited to a few.
- Every one's leadership competencies can be developed .
- It is imperative for managers to explore their talent and develop their leadership competencies for their own good and the good of their organizations
- Self awareness is the most very critical first step in developing their leadership talent
- Organizational programs and plans are required to develop leadership talent and leadership development programs do help developing the same.

If leadership is so critical and the future of corporations depends upon having as many leaders as possible it is critical for corporations to develop more and more of leadership talent. Many leadership programs focus on specific traits rather than any comprehensive qualities. This is because it is difficult to have any one quality focussed. It is for this reason many organizations have attempted in the last one-decade to use the 360-degree feedback as Leadership development tool. In India also it is becoming popular.

RSDQ Model of 360-Degree Feedback

TVRLS (a consulting company based in India) has developed a model for Indian Top and Senior Management in

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terms of managerial and leadership competencies needed, which is termed as the RSDQ model (Roles, Styles, Delegation and Qualities). This model of leadership and managerial effectiveness views effective management and leadership as a combination of four sets of variables. These are: Roles performed, the Style of leadership, Delegation and Qualities.

Roles. The extent to which the individual plays various leadership and managerial roles and activities. There are a number of roles, which have to be played by every manager in order to be an effective manager. These are both transformation roles (leadership roles) and transactional roles (managerial). Some of these are: Articulating, communicating and monitoring vision and values, policy formulation, planning and goal setting, introducing and managing new technology and systems, inspiring, developing and motivating juniors, managing juniors, colleagues and seniors, team work and team building, culture building, internal customer management, external customer management, and managing unions and associations.

Each of these roles had both transactional and transformational activities. For example, "articulating vision and values for the organization" is a transformational activity, "monitoring to ensure that the values are followed" is transactional activity.

Styles. While effective managers recognize all the leadership roles and perform them well, it is not only the roles or activities that determine the effectiveness but also the way in which they are played. The model envisages that managers may play most roles well, devote time and effort but could be insensitive to the style with which they carry out these activities. Rao (1986) has classified the leadership styles, on the basis of the earlier research at the Indian Institute of Management, into the following: (i) *Benevolent or Paternalistic leadership* style in which the top level manager believes that all his employees should be constantly guided treated with affection like a parent treats his children, is relationship oriented, assigns tasks on the basis of his own likes and dislikes, constantly guides them and protects them, understands their needs, salvages the situations of crisis by active involvement of himself, distributes rewards to those who are loyal and obedient, shares information with those who are close to him, etc. (ii) *Critical* leadership style is characterized as closer to Theory X belief pattern where the manager believes that employees should be closely and constantly supervised, directed and reminded of their duties and responsibilities, is short term goal oriented, cannot tolerate mistakes or conflicts among employees, personal power dominated, keeps all information to himself, works strictly according to norms and rules and regulations and is highly discipline oriented. (iii) *Developmental* leadership style is characterized as an empowering style, where the top manager believes in developing the competencies of his staff, treats them as mature adults, leaves them on their own most of the times, is long term goal oriented, shares information with all to build their competencies, facilitates the resolution of conflicts and mistakes by the employees themselves with minimal involvement from him.

Developmental style by nature seems to be the most desired organization building style. However some individuals and some situations require at times benevolent and critical styles. Some managers are not aware of the predominant style they tend to use and the effects their style is producing on their employees.

Delegation. The RSDQ model considers level of delegation as an important part of a senior executive's effectiveness. This dimension has been included because most senior managers seem to have difficulties delegating, especially those effective managers who get promotions fast in their career. In view of these experiences, delegation has been isolated as an important variable of leadership. Those who delegate release their time to perform higher-level tasks and those who don't continue to do lower level tasks and suppress their leadership qualities and managerial effectiveness.

Qualities. The model envisages that managers should exhibit qualities of leaders and world-class managers (e.g. proaction, listening, communication, positive approach, participative nature, quality orientation etc.). Such qualities not only affect effectiveness with which top-level managers perform various roles but also have an impact on the leadership style and hence are very critical.

Objectives

This study aims at answering the following questions: 1. What are the various roles and activities the Indian CEOs perform extraordinarily well? 2. What roles and activities are they weak at performing? 3. What are their predominant styles of leadership and supervision? 4. What is the impact of their styles on their subordinates? 5. What are the patterns of delegation? 6. What are the qualities they exhibit and what do they lack?

The Instruments.

These issues were studied using the results from 360 Degree feedback on an instrument based on the RSDQ model of TVRLS. The questionnaire had five parts: the first part dealt with Leadership and managerial roles and an assessment of how well he performs various roles or the 75 activities associated with these roles? The questionnaire measuring these consists of 75 items grouped under the various leadership and managerial roles explained earlier. Each CEO was assessed on a six point scale where a score of 6 represented that the CEO performs that activity or role extraordinarily well (percentage score of 100), 5 represents that he performs that role or activity very well (80% score); 4 represents that he performs that role reasonable well (60% score); 3 represents that he performs that role satisfactorily (40% score); 2 represents that he performs that role not so well and rather unsatisfactorily (20% score) and 1 represents that he performs that role very poorly or very inadequately (0% score).

The second part consisted of a Leadership Styles questionnaire that assessed the style of dealing with 12 different situations like managing rewards, managing conflicts, managing mistakes, assignment of tasks, communication etc. For each situation three alternative styles that are supposed to be the most characteristic of Indian Managers (on the basis of previous research) were presented and the assessor was asked to indicate to what extent each of the styles characterize the individual. The respondent is expected to distribute six points between the three styles using six points. The points were later converted into a percentage score. The style average was calculated using the average score obtained by each candidate on the style item.

Delegation was measured using a 10-item scale that measured various symptoms of delegation or non-delegation. The extent to which the candidate exhibits each of these symptoms was assessed by the percentage of assessors checking the items.

The fourth part of the questionnaires consisted of assessment of the extent to which the candidates performed on each of the 25 qualities of leadership. A seven point semantic differential scale was used where "+3" score indicated that the quality is extremely characteristic of him (100%) score, "+2" indicated that the quality is somewhat characteristic of him (84%), +1 indicated that it is a little characteristic of him (67%); "0" indicated that the quality is as much a characteristic of him as the negative part of it, "-1 " indicated that the negative side of that quality is more characteristic of him than the positive side (33%), "-2" indicated that the negative side of it is more characteristic of him (17%); and "- 3 " indicated that the quality is not at all characteristic and the opposite of it is most characteristic of him (0%).

The Sample.

The sample consisted of 26 CEOs from Indian organizations. These are all different organizations in the manufacturing sector, services, information technology, consumer electronics, financial services etc. The organizations are located in different parts of the country. The CEOs are all those responding to the 360 Degree initiatives. They all belonged to organizations that are interested in using 360-Degree feedback as a development tool. Each of these CEOs was assessed by their colleagues, subordinates and their seniors (other Board members etc.). All these 26 CEOs were assessed by 373 Assessors. The number of assessors ranged from 2 in one case to 38 assessors in another case. The assessment of others was only taken into consideration for the purpose of this paper. Self-assessment was not taken into consideration. It was assumed that the combined assessment of other persons is representative of the actual performance of the individual CEO.

Limitations.

The study is based on 360-Degree feedback and is only indicative of perceptions of the assessors. An actual observational study may indicate the actual roles performed, time devoted, the impact etc. This study, at best, could be limited by the perceptions of the assessors, and so suffers from the usual limitations of 360-Degree feedback studies.

Results

Trends of the Effective Leadership and Managerial Roles: Top five effectively performed and the bottom five less effectively performed roles by the Indian CEOs. Tables 1 and 2 present the five best performed and five least well performed roles by Indian CEOs. The group as a whole scored the highest and lowest respectively on these items. The tables also present the range of scores among the 26 CEOs studied.

The top five of the well performed activities in Table 1 indicates that the Indian CEOs are good at managing their seniors. They communicate and liaise well with them, understand their expectations, take guidance and also influence their thinking. Most of the seniors for these CEOs include their Chairman, Board Members, and other full time Directors. The Indian CEOs are weak in managing their unions and also in providing periodic feedback to their juniors. Two of the five least well performed roles deal with managing their junior employees.

Table 1: The Five Most Well Performed Roles of CEOs in Indian Corporate Sector

S. No	Item content	Average % score	Lowest %score	Highest %score
1	Communicating effectively with the boss, keeping him informed and maintaining good interpersonal relations	82	66	100
2.	Understanding the expectations of the boss and the top management and trying to meet them	81	65	100
3.	Influencing the thinking of the boss and getting his support and resources	76	53	91
4.	Taking guidance and learning from the experiences of the boss	76	61	92
5.	Liaison with top functionaries and the top management to keep them informed of developments	75	48	92

Table 2. The Least Effectively Performed Roles of the CEOs

S. No	Item content	Average % score	Lowest %score	Highest %score
1	Working with the unions and office bearers to control sloppiness, incompetence and indiscipline	56	40	80
2.	Carrying the unions along to contribute to the organizational goals and standards	58	33	90
3.	Monitoring to ensure that all the organizational values are followed by the staff	60	44	77
4.	Motivating the union representatives to have positive influence on the staff to maintain the image of the organization	60	38	100
5.	Providing periodic feedback to his juniors and other staff.	61	43	80

A further analysis of the data revealed that culture building, inspiring and developing staff by investing time and effort on their development are assessed as the least well performed activities. It seems from the 360 degree Feedback data that the top management are still busy impressing their seniors than juniors. If they have to be good leaders, they need to shift their focus to competence building of their juniors.

Table 3 presents data on 10 transformational roles performed by the Indian CEOs. The data indicate that Indian CEOs perform transformational roles much less effectively than transactional roles. All the roles they perform well, as is evident from Table 1, are transactional roles. Even the well-performed transactional roles are limited to effective management of boss and seniors. Transactional roles with the unions and staff seem to be relatively poor.

Table3: How Indian CEOs Fare on Transformational Leadership Roles?

S. No	Item	Average % score	Lowest % Score	Highest % Score
1	Inspiring staff with vision and values	64	39	91
2	Learning from Colleagues and benefiting from their experience	66	51	86
3	Policy formulation for the unit in relation to various issues like business development and staff management	66	43	92
4	Introducing new systems of management to manage various activities and operations effectively	67	36	86
5	Articulating the culture that should characterize the unit	67	45	94
6	Setting long term goals and objectives	68	43	88
7	Evolving strategies to improve customer satisfaction	68	44	87
8	Understanding business environment and opportunities to make an impact	75	44	96
9	Setting personal example in terms of following vision and values	72	43	97
10	Articulating vision for the unit	70	43	90

Leadership Styles and their Impact

The analysis of the Leadership Styles indicated that while Indian CEOs are predominantly developmental in their style. For example: when mistakes are made they tend to encourage people to learn from their mistakes (53% score) rather than protecting the subordinates and salvaging the situation themselves (34% score) or getting emotional even for minor mistakes (13%) . When conflicts arise they encourage people to solve their problems in such a way that they develop capability to resolve conflicts in future (58% score) rather than giving their judgement and making the employees dependent on them (30% score) or reprimanding the erroring side (12% score). The development style was indicated in the way they take decisions, the way they assign the tasks, the way they communicate and the way they treat the juniors in other matters. In all these areas their benevolent or paternalistic style was about 30% as compared to 60% developmental style and 10% critical style.

As a result of this developmental style they seem to be creating certain amount of empowerment. The data also indicated that even the 30% of paternalistic style, which is characterized by value for relationships and a tendency to favour few of their subordinates, leads to a substantial degree of dependence. About 30% of their subordinates perceived them as favouring a few. This is a high percentage.

The Indian CEO is in transition. Most organizations in the past used to be managed with a paternalistic style. This style seems to create dependence while it also gets loyalty and hard work. Juniors of the CEOs who predominantly use paternalistic style were found to have high degree of dependency and at the same time admiration for the CEO. However, only some of their juniors reported of learning from them. They seem to work in order to maintain a relationship and out of admiration for the boss rather than out of enjoyment of the work.

While developmental style was the most predominant style for all the CEOs, there were a few CEOs who scored high on critical style. This CEO's were found to create resentment among their subordinates some of whom felt that they are unable to learn much while working with such CEOs. Such CEOs found the 360 degree feedback very helpful and prepared plans to change their styles.

Table 4: Extent of Delegation/Non-Delegation Symptoms Exhibited by the Indian CEOs
(Higher the percentage less the delegation)

Sr. No	Indicator of delegation	Average % score	Highest % score	Lowest % score
1	He generally prefers his juniors to wait for his return rather than take decisions in his absence.	19	98	0
2	He does not leave routine decisions entirely to the lower levels.	24	100	0
3	Generally his in-tray piles up quite full with files and papers when he goes away on tour.	22	95	0
4	He is cautious and does not let his subordinates take even minor risks.	17	95	0
5	He spends time on activities and problems that he was handling before his last promotion/or his previous job.	18	70	0
6	He prefers his subordinates to check with him whenever a problem arises in an on-going project or assignment	55	100	0
7	He likes to keep himself fully involved in everything being handled by his subordinates.	32	80	0
8	He likes to be consulted even on matters where a rule or precedent already exists.	24	95	0
9	We often wish he would not spend time doing work which we can easily handle.	17	81	0
10	He is often rushing to meet deadlines.	29	58	0
	Overall	26	62	8

Delegation

The extent to which the symptoms of delegation or non-delegation are exhibited by the CEOs is presented in Table 4. The table indicates that the Indian CEOs in general are delegating type. The table indicates that in general the Indian CEOs are perceived as delegating about 74% of the time. Their delegation tendency drastically comes down when problems arise. They generally prefer their subordinates to check with them when problems arise.

On all the other areas the delegation seems to be reasonably good. There is, however, a great degree of variation among the CEOs on the extent to which they delegate. There were a few who have tremendous difficulty delegating (zero delegation).

Behavioral Qualities

The assessment of the 26 CEOs on 25 behavior Qualities is presented in Table 5. The CEOs in general are rated very high on almost all the 25 behavioral qualities. However they scored high on some qualities. The percentage scores are given in brackets. A score of around 80% can be treated as a high exhibition of that quality (the opposite of it is only 20%).

Table 5: Top 5 High Scoring Behavior Qualities of the 26 CEOs

S. No	Behaviour dimensions	Average % score	Lowest % score	Highest % score
1	Clear and persuasive communication rather than unclear and long winded communication	85	68	100
2	Active rather than passive	85	57	100
3	Takes positive approach rather than negative approach	84	70	95
4	Change oriented rather than status quo oriented	83	63	97
5	Encouraging rather than discouraging	83	70	97

The five qualities on which they scored relatively lower are presented in Table 6. (Percentage scores given in brackets). Variation is high on the low scoring qualities.

Table 6: The Lowest Scoring Five Behavior Qualities of the 26 CEOs

S. No	Behavior Quality	Average % score	Lowest % score	Highest % score
1	Empathetic rather than corrective (68% score indicating that they could be 32% corrective)	68	46	87
2	Participative rather than authoritarian	69	36	92
3	Calm and composed rather than irritable	71	33	100
4	Patient and accepting rather than impatient and intolerable	71	48	100
5	Proactive rather than reactive	71	43	90

An analysis of the open ended questions asking their assessors to mention their strengths and weaknesses revealed that technical knowledge, activity level, dynamism, delegation, interpersonal skills, hard work, and flexibility were more frequently mentioned strengths. On the other hand, open mindedness, change orientation and irritability were more frequently mentioned weak areas. As a great degree of variation was found, it is difficult to conclude any of these as commonly shared strengths or weaknesses.

Conclusions and Recommendations

The study indicates the following on Indian CEOs:

- There is a great degree of variation in the effective performance of roles, styles, delegation and qualities. This indicates the need for 360 Degree feedback as tool to create more self awareness.
- They are not yet taking direct responsibility for developing others as leaders. They seem to do little to inspire and develop their juniors.
- While they are good at articulating their vision, and communicating the same to their juniors, the impact of this gets limited and they are not able to teach others about how to make the organization successful. They

are still operating at conceptual level and are reluctant to share their past and explain their learning experiences and beliefs

- They are not spending adequate time and effort to develop their own leadership abilities, and the talent of others. Their investment in the 360 degree feedback is just a beginning.

Most Indian CEOs are far off from the leadership roles outlined by Tichy and Cohen (1997). They still need to demonstrate their ability to invest on developing others as leaders. They are probably using their communication skills impress their seniors more than inspiring their juniors. This transformation is needed fast.

In sum, Indian CEOs seem to be good at boss management and weak at managing Unions and also on transformational roles. They seem to perform less effectively the transformational roles. Among the transformational roles their strengths lie in articulating vision for the unit and influencing the thinking of their seniors. On a large number of other areas like culture building, inspiring and developing staff etc. they need to develop a lot more. Future leadership programs should focus on their change management skills. Their styles are predominantly developmental. Professionalism seem to have set in to a good degree in terms of their styles. Only in crisis situations like managing mistakes and conflicts their paternalistic style seem to come to surface. They seem to delegate a good deal. High activity level, positive thinking, communications, change orientation etc. are some of the notable strengths. Proactivity, cool and composed nature, empathy, patience and participative nature could be developed more to make an impact. Some of these roles and qualities could be developed. Leadership development programs could be focused on the above-indicated gaps.

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The Influence of the Implementation of a Transfer Management Intervention on Transfer of Training

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Research and theory on transfer of training has indicated that transfer management interventions may improve transfer outcomes and influence employee perceptions of transfer climate. This study evaluated the effectiveness of transfer management interventions provided by a change facilitator in establishing a positive transfer climate and promoting achievement of transfer goals set by middle school teachers.

Keywords: Transfer of Training, Transfer Management, Transfer Design

Employees of today's organizations are faced with the challenge of continually updating their skills and applying new technologies to enhance their work performance. Employee training programs are still the most popular method for transmitting knowledge and introducing technology skills in the effort to improve employee performance (Broad, 1997). Yet transfer of training, or the application of knowledge and skills that have been newly acquired during training, continues to be a major concern of human resource development specialists and managers. Are employees applying what they've learned in technology training? In what ways can HRD practitioners support and enhance the transfer of training?

Public school personnel, like employees of many other enterprises, are faced with the challenge of learning new technology skills and integrating them into their daily practice. Our study evaluated the effectiveness of transfer management interventions provided by a change facilitator in establishing a positive transfer climate and promoting achievement of transfer goals set by middle school teachers.

Problem Statement

The problem of transfer of training continues to be a concern for HRD practitioners and managers. Broad (1997) noted that while training is the most frequently used method for improving workplace performance, "research, observations of training professionals, and testimony from many managers show that most current training efforts do not result in significant transfer of new skills and knowledge to the job." (p. 8). The rate of transfer has been reported across the literature to be from 10% (Georgensen, 1982) to 40% (Broad & Newstrom, 1992).

Over thirty years of research on the transfer of training phenomenon has illuminated transfer as a complex process that is influenced by learner, instructional, and environmental variables (Baldwin & Ford, 1988; Ford & Weissbein, 1997). HRD researchers of training transfer have offered discussions concerning barriers to transfer (e.g., Newstrom, 1985), factors for performance improvement (e.g. Rummler & Brache, 1995), and comprehensive models of transfer (e.g. Noe, 1986) to shed light on the transfer process. Holton (1996), stating that "evaluation of interventions is among the most critical issues faced by the field of HRD today" (p. 5), proposed a model for the evaluation of employee training programs that designates transfer of training, the change in individual performance as a result of applied learning, as an important outcome variable to examine.

Theoretical Rationale

Holton (1996) proposed, based on past research, that individual performance outcomes are influenced by motivation to transfer newly acquired knowledge and skills, individual job attitudes, transfer conditions within the work environment, and the implementation of transfer designs. This segment of Holton's model was the foundation for the reported research. In this study, motivation to transfer was defined as the measure of the employee's

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perceived applicability and usefulness of technology skills (Noe, 1986) and the level of challenge, anticipated support, and intention to use new skills (Kehrhahn, 1995).

Proposed individual characteristics that influenced transfer of technology training were teacher efficacy and age. Teacher efficacy (Ashton & Webb, 1986), the perception of one's own abilities to perform a new task coupled with one's belief that teaching efforts will overcome other obstacles to successfully bring about student learning, was studied as the participants' beliefs that their successful integration of technology into the curriculum would enhance student learning. Age was selected as an individual variable because of its relationship in other studies to apprehension to learn about and use technology (Hastings, Sheckley, & Nichols, 1995)and slower acquisition of new skills (Pascual-Leone & Irwin, 1994). Transfer conditions within the work environment called environmental favorability (Noe, 1986), included informal social support from peers, administrators, and a technology change facilitator, and task support, in the form of resources such as time and equipment (Peters & O'Connor, 1980). In addition, teachers' perceptions of the school climate to support change (Sagor & Barnett, 1994) were expected to influence their transfer behavior.

Transfer design was a critical component of our study. Transfer designs are interventions connected with the training program that will have a direct influence on transfer. Holton (1996) stated that transfer designs "vary considerably depending on content, cultures, and other situational factors" (p. 15). Broad (1997) advocated for the development of transfer management interventions to dramatically improve transfer rates. Broad suggested specific strategies which included: Addressing trainees' personal concerns to reduce anxiety; providing coaching and information to trainees as needed; building a sense of community among learners, offering a variety of program options; and, creating opportunities for practice and time to meet with instructors. The Concerns-based Adoption Model (CBAM; Hord, et al., 1987) is a systematic approach to transfer and change management. According to this model, individual change is a developmental process whereby individuals must address personal concerns before they can approach the task; similarly they must address task management concerns before considering impact on student outcomes. Using Hord et al.'s model as a guide, we designed and implemented a transfer management program to increase transfer goal attainment. A Technology Change Facilitator (TCF) facilitated the planning, instruction, and support for the transfer effort.

Ford and Weissbein (1997), in their update of Baldwin and Ford's (1988) classic review of transfer of training research, emphasized the need to study training designs that enhance transfer, and continued examination of individual and environmental factors that seem to promote or inhibit transfer. Holton (1996) noted that future research should identify specific variables that should be measured with regard to changes in individual performance as a result of training. The reported study set out to examine transfer of technology training across an entire organization, a middle school, to determine the contributions of transfer design as well as individual and environmental variables.

Research Questions

RQ1 To what extent can the implementation of a transfer management intervention improve transfer of training outcomes?

RQ2 To what extent can the following variables: teacher efficacy, environmental favorability (social support, task support, school climate), motivation to transfer, and age, account for differences between employees who transfer training (Users) and those who do not (Non-Users)?

Methods

Quantitative and qualitative data were collected over the course of one school year. The yearlong focus allowed time for the transfer management intervention to be fully implemented and to carefully examine its influence on the growth and implementation of technology-related skills. Data collection was targeted at gathering information to illuminate the factors that contributed to the transfer of technology training as faculty worked to meet their technology transfer goals for the year.

Participants. The research was conducted in a typical suburban middle school located in New England. Administrators included a principal and two associate principals, as well as a district-wide curriculum specialist for each academic discipline. The entire middle school staff of 75 certified teachers participated in the mandatory professional development program. The 68 teachers who participated in the study consisted of 25 men and 43 women, ages 25 to 59, who had been employed at the school for 1 to 35 years. They were classroom teachers from grades 6, 7, and 8, as well as cross-grade specialists, such as unified arts, guidance, and music teachers. Sixty-three participants had attained a Master's Degree or higher.

Transfer Management Intervention. The transfer management intervention was planned to address the ongoing needs of individual learners and to provide an environment conducive to learning, practicing, and implementing new technology skills. The professional development program included an initial training session, presence of a change facilitator (TCF) who focused her work on the implementation of technology-related changes by promoting individual use and addressing concerns, and a year-long program of formal and informal activities and supports that promoted learning and application. The transfer management intervention was designed by the researchers, the TCF, and the building staff development team and was implemented by the TCF. Specific features of the transfer management intervention are listed in Table 1.

Table 1. Features of Transfer Management Intervention

Component	Specific features
Planning (Fullan, 1991; Hall et al., 1986)	• Ground efforts in district-wide goal for technology literacy for all staff by 2000 • Assess needs and concerns of teachers prior to planning the effort • Plan interventions to legitimize and address individual concerns • Develop resources to address individual questions in a timely manner
Initial training session (Locke & Latham, 1990)	• Familiarize staff with range of technology uses and resources • Assess current technology skills • Determine personal transfer goal by establishing a technology implementation goal • Develop specific approaches to achieving the goal and assessing goal achievement
Technology change facilitator (Hord, et al., 1987)	Role: • Mediate between the individual learners and the workplace context • Listen to staff concerns and address these concerns as part of the professional development effort • Adjust the effort to meet the needs of individual learners and work demands Personal qualities: • Strong teacher efficacy • Knowledge of adult learning principles and outstanding training and leadership skills • Willingness to be available to teachers
Formal learning opportunities (Olivero, Bane, & Kopelman, 1997)	• 26 one-hour classes that addressed faculty's common learning needs on a sign-up basis • Deliberate practice sessions focused on adaptation of skills for classroom use • Specific instruction in use of software and technology
Informal learning Guided and independent practice (Broad, 1997)	• Hands-on practice sessions • Feedback readily available from TCF and peers
Goal management (Cheek & Campbell, 1994; Locke & Latham, 1990; Wexley & Baldwin, 1986)	• Participants chose and defined their own goals • Supervisory goal discussions at three evaluation conferences during the year • Coordination and synchronization of department level goals • TCF followed up on goals and offered assistance • Continual reminders from peers and the learning community to focus on and achieve goals
Learning teams (Broad, 1997; Killion & Kaylor, 1991; Kiener, 1994)	• Learners organized their own collaborative sessions (informal breakfast meetings, team meetings, after school meetings) around common goals • Meetings used for planning, reflective dialogue, problem solving, and adaptation of skills to

	specific situations • TCF provided facilitation, problem solving, and mentor support for teams
Coaching and technical assistance (Broad, 1997)	TCF orchestrated: • Observation sessions for reluctant learners in classes in which technology was being used • Dissemination of journal articles • Teaming of faculty who were not working on goals with mentors who had successfully accomplished goals • Individual tutoring from TCF and other experts upon request • Establishment of growing list of technology experts who could answer questions and solve problems in a hurry • Publication of monthly newsletters that highlighted tips, resources, networking opportunities, and help sessions • Publication of a help manual that included simple steps for independent practice

The wide variety transfer management activities addressed the concerns of most participants and the results showed that addressing a variety of levels of concern facilitated transfer for many individuals. Following Pranger's (1998) research, the model-in-action demonstrated an intensive coordination of informal and formal learning opportunities using the resources of a skilled facilitator and knowledgeable peers.

Data gathering. Quantitative and qualitative data were collected throughout the school year. Prior to the start of the professional development effort, each faculty member completed a Demographic Information Sheet to provide information about age, gender, subject area taught, highest degree attained, years of teaching experience, various indicators of technological expertise, and involvement in other professional development initiatives. The Gibson Teacher Efficacy Scale (1984) was administered to determine participants' general teaching efficacy (r = .70)[1], their belief that teachers in general make a difference with students, and personal teaching efficacy (r = .78), their belief in their own ability to make a difference by learning new skills. In addition, the School Climate Inventory (Sagor & Barnett, 1994; r = .82) was administered to determine the degree to which participants felt that the school climate was conducive to change. Immediately following the initial training session, teachers set and recorded their personal technology literacy goal (transfer goal) for the year, assessed the quality of the training using an evaluation form, and reported on their intention to implement what they had learned in the session using a Motivation to Transfer scale (r = .73).

During the ensuing months, one researcher conducted regular visits to the school. She contacted the TCF frequently to monitor and record information about interventions, observed activity in the computer lab, and informally interviewed teachers and administrators to monitor the general progress of the implementation plan. Anecdotal data was carefully documented for later analysis. One month before the end of the school year, an Environmental Favorability survey (r = .78) was administered to measure participants' perceptions of resources and support that helped them reach their technology goals. The survey included items about perceived frequency of social support from peers (r = .79), administrators (r = .72), and TCF (r = .80), and the perceived usefulness of this social support from peers (r = .60), administrators (r = .47), and the TCF (r = .69). At the last staff meeting of the year, teachers revisited their transfer goals and assessed their goal attainment. Each teacher was given a Levels of Use open-ended questionnaire, adapted from the Levels of Use interview format (Lyness,1985), to assess implementation of their technology-based learning and the degree of success in reaching their transfer goal. In addition, each teacher was assessed and assigned a level of technology expertise (nonuser, low-end user, moderate user, high-end user) by the district technology supervisor. These data were used to triangulate individual reports of goal attainment.

Data analysis. Quantitative data from the five instruments (Levels of Use assessment, Gibson Teacher Efficacy Scale, Motivation to Transfer scale, Environmental Favorability scale, School Climate Inventory) were analyzed to develop a composite profile of teachers who successfully reached their transfer goals. Qualitative data were evaluated to add depth and detail to the emerging profile of those who transferred training.

First, the researcher scored each teacher's response to the Levels of Use questionnaire. Participants were assigned one of seven Levels of Use (0= no interest; I = seeking orientation; II = preparing to implement; III = mechanical implementation; IVA = routine implementation; IVB = refining implementation; V = collaborating with colleagues to achieve collective implementation; and VI = seeking new goals and making major modifications in use of technology skills) by matching key words found in their responses to those indicated in the Level of Use scoring manual (Loucks, Newlove, & Hall, 1975). To assure the accuracy of the assignment into User/NonUser categories, two experts reviewed the written interviews to confirm assignment to appropriate categories. Self-reports on accomplishments described in the interviews were cross-checked with documentation of individual participation and goal attainment kept by the TCF and district technology skills assessment reports to confirm the accuracy of self-reports. Users were defined as those subjects whose use of their self-determined technology goal reached at least a mechanical level. Nonusers were those who had not yet begun to use the innovation.

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[1] Cronbach's alphas reported in the text are those calculated for the sample.

Once individuals were assigned to either *User* or *Non User* groups, the groups were examined for distinguishing differences using discriminant function analysis. We then sought to further explain differences between the groups by using qualitative data to support or illuminate distinctions found in the quantitative analysis.

Results

RQ 1 To what extent can the implementation of a transfer management intervention improve transfer of training outcomes?

The overall purpose of the study was to determine whether the implementation of a transfer management intervention carefully designed to support learning, application, and goal accomplishment would result in higher participation and better results than standard staff development and in-service efforts. Overall, 79% of the teachers (54 teachers) involved in the study engaged with and reached their transfer goals. Using the Levels of Use framework as a guideline to determine transfer, eleven teachers were using technology mechanically, indicating that they had initiated use on a short-term basis. Fifteen teachers were routinely using technology as part of their day-to-day work. Seventeen teachers had reached a level of refinement, varying use of the technology to increase the impact on students. Eight teachers were collaborating with colleagues to achieve a collective impact on students, and three were seeking major modifications or adapting their goals to expand use of technology.

In this study, 21% of the participants (14 teachers) did not engage with or reach the transfer goals they had set. At the end of the year, seven teachers remained at the lowest level of non-use, indicating no interest in technology implementation. Two teachers reported that they were seeking orientation in order to begin work on their transfer goals and five participants were preparing to implement their goals. Years of research on the relationship between attendance at a professional development workshop or seminar and change in individual performance have consistently found that very few traditional programs result in more than low levels of transfer of training (Baldwin & Ford, 1988; Broad, 1997). Even the most generous estimates of transfer set the rate at about 40% (Newstrom, 1990). Against the background of the reported ineffectiveness of traditional professional development programs, a transfer rate of 79% is exceptional.

Qualitative data collected through open-ended questionnaires pointed to what learners felt were the most effective features of the transfer management intervention. Responses to the question: "What factors contributed to your success with your technology goal?" were thematically coded for content. Teachers acknowledged: 1) the Technology Change Facilitator, specifically support, coaching, availability, and responses to questions on a timely basis; 2) peers, specifically access to peer expertise, coaching, and availability; 3) anticipation of follow-up and knowing there was a plan to provide technical assistance and support in place; 4) the availability of a range of activities at various times that met individual needs and allowed learners to work at their own pace; 5) availability of feedback from TCF and peers; and, 6) expansion of the network of experts from whom learners could seek advice. Clearly, the responsiveness and availability of social support resources focused on the application of new technology skills influenced the high rate of transfer.

RQ2 To what extent can the following variables: teacher efficacy, environmental favorability (social support, task support, school climate), motivation to transfer, and age, account for differences between employees who transfer training (Users) and those who do not (Non-Users)?

Discriminant Function Analysis (DFA) was used to test RQ2. The rationale behind discriminant analysis is to make use of existing data dealing with group membership and relevant predictor variables to create a formula that will accurately predict group membership, using the same variables with a new set of participants. Univariate analysis of the independent variables by group was conducted to select the most parsimonious equation for the DFA. The analysis revealed the highest effect sizes for differences between groups were perceived social support (d =

.96)[2], teacher efficacy (d = 1.02), motivation to transfer (d = .70), and age (d = .80). Perceived task support (d = .24), quality of training scale (d =.05) and school climate (d = .09) were not included in the final DFA because there were no significant differences between Users and Non-users with regard to these variables. Independent variables that demonstrated the highest effect sizes in univariate analyses were entered using the direct method.

The results of the final discriminant analysis for independent variables associated with transfer of training of technology skills are presented in Table 2. The table includes classification results, as well as a simple summary of number and percent of participants classified correctly and incorrectly for each group. As shown in Table 2, 86.76% of the cases were correctly classified. The analysis predicted Users, those who successfully transferred training, with 94.4% accuracy. Only 3 Non-users (5.6%) were incorrectly classified as Users. The analysis predicted 57.1% of Non-users as such, and 42.9% of Users incorrectly as Non-users. This analysis indicates that Users can be differentiated from Non-users on the basis of the variables teacher efficacy, perceived social support, motivation to transfer, and age.

Table 2. Classification Results of Discriminant Function Analysis

		Predicted Group Membership	
Actual Group	Number of Cases	Users	Non-users
Users	54	51 (94.4%)	3 (5.6%)
Non-users	14	6 (42.9%)	8 (57.1%)

Percent of "grouped " cases correctly classified: 86.76 %

The analysis of RQ2 reported a Wilks' Lambda of .71 ($p < .0002$). According to this statistic, 29% of the variance associated with group membership is explained by the independent variables ($1-\Delta = .29$), leaving 71% still unexplained. In addition, Wilks Lambda (U-Statistic) can be determined using the step-wise method. In the present study, the approximate contribution of particular variables using this method ($1-\Delta =\%$) were as follows: Perceived social support contributed 15% of the variance in transfer of training ($\Delta = .85$); teacher efficacy contributed 14% of the variance ($\Delta = .86$); motivation to transfer contributed 9% ($\Delta = .91$); and age contributed 8% ($\Delta = .92$). The total is greater than 29% because of overlapping variance.

Additional Analyses. Two additional analyses were conducted as follow-up to the DFA. The researchers examined the composition of the group of Non-users predicted to be Users, and the composition of the group of Users predicted to be Non-users. Individual scores on instruments and qualitative data were examined to determine why individuals were mis-classified.

Why had the six teachers not met their transfer goals when their profiles indicated that they would be Users? While all six participants had high teacher efficacy, three did not perceive social support to the same degree as users, two were not as motivated to transfer, and three were older than the 95% confidence interval for age. The further examination of the data implied that all four independent measures must be at optimal levels in order for transfer to occur. Anecdotal data from Levels of Use questionnaires and person interviews indicated that these teachers had individual reasons for lack of transfer: availability of equipment, timing of training, lack of job applicability, involvement in other initiatives, fear of computers, and lack of personal ability. In other words, these individuals fit the profile to be Users, but individualized concerns interfered.

Based on the first follow-up analysis concerning these teachers, the researcher examined two additional areas. First, specific questions posed in the Motivation to Transfer instrument provided insight. In particular, when asked, "How applicable are the new knowledge and skills you've learned to your job?" all of these participants responded "Not at all applicable." Second, examination of the technology goals set by these participants revealed that all had committed to a non-specific goal at the beginning of the study, such as "improvement in computer use," and "becoming familiar with programs." As suggested in prior research, the perceived applicability of the new knowledge and skills and the specificity of set goals influence the effort to transfer training.

Also of interest to the researchers was the question: Why did three teachers implement their transfer goals when variables used in the discriminant function analysis predicted that they would not? While these participants fit the Non-user profile on every independent variable they all appeared to have been influenced to reach their transfer goals. One individual worked in a department in which use of technology was high and was encouraged by peers to persist in integrating technology. Another teacher worked to become much more computer literate on his home computer and transferred those skills to his work environment. The third individual was strongly encouraged by his administrator to use technology on the job. The follow-up analysis indicated that even those teachers whose profiles indicated that they would not transfer training could be influenced to transfer in various ways.

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[2] Effect sizes were calculated using the Cohen's d convention (1992).

Conclusions and Recommendations

The results of the study support the segment of Holton's (1996) model of HRD Evaluation and Research (p. 17) that proposed that motivation to transfer, perceptions of transfer climate, and the implementation of a transfer design have a direct influence on transfer of training. In addition, the job attitude teacher efficacy, or the belief that learning and applying new technology skills would produce positive outcomes for students, positively influenced transfer of training efforts. The results of the study shed light on specific aspects of the transfer of training phenomenon that will help HRD practitioners become more proficient at orchestrating and influencing the transfer process.

Motivation to Transfer. Motivation to transfer explained 9% of the variance in transfer of training in this study. Motivation to transfer was framed as a combination of perceived applicability and usefulness of new technology skills, as well as the level of challenge associated with application, the anticipated support for applying new skills, and the intention to achieve the transfer goal. The applicability and usefulness of technology knowledge and skills appeared to be a deciding factor in the study as those who did not meet their transfer goals clearly stated that there was no applicability of technology skills to their specific jobs. For HRD professionals, the implication of these results highlight the importance of working with learners to develop a level of understanding of new technologies that can lead to the perception of applicability to their specific job. Assuming applicability, even for the most obvious skills, may not be enough; HRD professionals must assess learner perceptions of applicability and may need to develop interventions for those learners who have not made the connection.

Transfer Climate. In this study, perceptions of the availability and usefulness of social support explained 15% of the variance in transfer of training. Interestingly, there was no difference between the group of teachers who reached their transfer goals and those who did not in terms of the perceptions of the school climate for supporting change. All the teachers saw the school climate as ready for and supportive of change. The resources and supports that were offered through the transfer management program were equally available to all teachers and all were encouraged to participate in the formal and informal activities; however, teachers who met their transfer goals *perceived* social support to be more available and more useful. The results of this study mirror the results of Shore and Wayne (1993) that demonstrated that perceived organizational support predicted organizational citizenship behavior. Many employees consider transfer of training to be organizational citizenship behavior (i.e., "extrarole behavior that is generally not considered a required duty of the job, p. 775). Further research may confirm the relationship between the propensity to perceive supportiveness and the willingness to engage in activities that are seen as voluntary yet beneficial to job performance.

Job Attitudes. While teacher efficacy, which explained 14% of the variance in transfer of training outcomes, is a construct specific to school settings, it is grounded in the concept that individuals have beliefs that learning and applying new skills will result in positive outcomes at a strategic level. Further, positive teacher efficacy implies that the individual feels that their efforts will not be thwarted or minimized by environmental barriers. Based on the results of this study, we propose that individuals are more likely to sustain an effort to transfer training if they feel their efforts will result in valued outcomes.

Transfer Design. The value of transfer design for facilitating a high rate of transfer is quite clear from the results of the study. Much like the findings of Olivero, Bane, and Kopelman (1997), we found that an extensive effort to provide opportunities for practice and feedback following participation in the initial training program was successful in producing changes in individual teacher performance among a large percentage of the participants. While the effort was extensive, the payoff was high. HRD specialists who seek to increase training effectiveness may find, based on these results, that there is no easy road to transfer. Design and implementation of transfer management interventions that are customized to the culture, the content, and the learners may be one of the most critical skills sets for HRD practitioners who are challenged to improve employee performance through learning.

How This Research Contributes to New Knowledge in HRD

This research contributes to a growing body of research that emphasizes the importance of the context within which application of new knowledge, skills, and attitudes take place, the workplace environment. Not only does this research confirm a segment of Holton's (1996) model for evaluating HRD efforts, it offers an example of a comprehensive transfer management intervention that worked to promote a high rate of transfer of technology training among the staff of an entire organization, a middle school. HRD practitioners who struggle with the transfer problem can glean ideas from the features of the transfer management intervention that they can test in their own arenas. Further, HRD practitioners may be inspired to develop and customize comprehensive transfer designs to improve the outcomes of their practice.

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Learning Strategies: A Key to Training Effectiveness

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Learning strategies allow trainers to quickly identify the individual differences of learners. This study measured the learning strategies of 456 adults; 45 were interviewed concerning how they apply their learning strategies and how instructor actions are either conducive or detrimental to their learning. The findings revealed a connection between the image of the organization and the type of learners attracted to it and described learning characteristics that can be utilized by trainers to improve learning.

Keywords: Adult Learning, Learning Strategies, Individual Differences

Adult Learning

Because of the demands of the Information Age, many organizations are becoming learning organizations. The useful and immediate application of new knowledge demands well-trained employees and necessitates an effective training program. Training is so important and vital to an organization's development that it must be effective and resources must be maximized. However, the teaching-learning process for this is complicated. More is involved in training than the transfer of knowledge at the cognitive level. Because of the diversity of individual learners, the needs of each learner should to be incorporated into the training activities.

Malcolm Knowles revolutionized both the study of adult learning and the process of teaching adults with the advancement of the concept of andragogy. Andragogy was originally defined as the "art and science of helping adults learn" but can be better envisioned as a set of assumptions about learners" (Knowles, 1980, p. 43). These assumptions are the bases of a learner-centered approach to the teaching-learning transaction. This contrasts to the teacher-centered approach that assumes the learner to be dependent, to bring limited experience to the teaching-learning transaction, and to seek primarily subject-centered educational experiences. In the teacher-centered approach, learning readiness is based on chronological maturation and not on either the social roles or the developmental tasks the learner is experiencing (pp. 43-44).

Andragogy provides a learner-centered approach for the instruction of adult learners. Andragogy is based on the following set of assumptions about the learner: (a) the adult learner's experience is acknowledged and utilized as a rich valuable resource for learning, (b) the adult learner moves from dependency toward self-direction, (c) the adult's readiness to learn relates to both developmental tasks and to an individual's social roles, (d) the adult learner is motivated by internal factors such as self-esteem and achievement, and (e) adults maintain a problem-centered focus which lends itself toward a need for immediacy of application of new learning (Knowles, 1980, pp. 43-45).

Meaningful adult learning experiences have the potential to transform the lives of the learners. Transformation theory attempts to analyze and explain the process through which adults make meaning of their experience. Adults delineate or understand their experience by interpreting information through several filters including the educational, religious, and socialization processes. Prior learning from each of these avenues tends to constrict, distort, and limit the adult learner's acting, believing, learning, perceiving, and thinking. "It is not so much what happens to people but how they interpret and explain what happens to them that determines their actions, their hopes, their contentment, and emotional well-being and their performance" (Mezirow, 1991, p. xiii).

Adult learning can be viewed as an interpretation of information utilizing one's existing set of expectations through which meaning and ultimately one's life are constructed. "In transformative learning, however, we reinterpret an old experience (or a new one) from a new set of expectations, thus giving a new meaning and perspective to the old experience" (Mezirow, 1991, p. 11). Through this process, an individual can release oneself from flawed and inadequate

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reasoning to embrace a more comprehensive and flexible understanding of oneself and the world.

Adults choose to learn for a variety of emotional, personal, professional, and social reasons. "It may be that the circumstances prompting this learning are external to the learner (job loss, divorce, bereavement), but the decision to learn is the learner's" (Brookfield, 1986, pp. 9-10). This position provides the adult learner with the power to either remain in a learning environment that enriches or to withdraw if the learning proves inadequate or unsatisfactory.

Learning Strategies

One way to implement adult learning principles is by addressing individual differences. Consequently, learning styles and strategies have been the subject of numerous research initiatives and much discourse in adult learning (Fellenz & Conti, 1993; Conti, Kolody & Schneider, 1997; Kolb, 1984). There are few psychological processes that have been examined with as much vigor. Early investigation centered upon teaching and teaching style as well as learning style assessment and individual differences in learning. A major shift in focus was ushered in when Kidd (1973) announced that the field of Adult Education was moving from a teacher-centered focus to a learner-centered focus. Others began to adopt a similar stance in their research of this area (Brookfield, 1986; Conti & Fellenz, 1991a; Conti, Kolody, & Schneider, 1997) as researchers recognized that "one can learn how to learn more effectively and efficiently at any age" (Smith, 1982, p. 15). Kidd (1973) skillfully summarized this emerging trend which placed utmost importance upon the learner.

> In all ages, of course wise men have recognized that learning is the active, not the passive, part of the process: the learner opens himself, he stretches himself, he reaches out, he incorporates new experience, he relates it to his previous experience, he reorganizes this experience, he expresses or unfolds what is latent within him. (p. 14)

A learner-centered approach emphasizes the learner as a critical, dynamic component of the learning process. Along with greater freedom, this role entails increased responsibility for one's own learning (Knowles, 1980, p. 48).

Current exploration and inquiry have shifted to the realm of learning strategies and their relationship to the learner in a variety of settings (Conti, Kolody, & Schneider, 1997; Gallagher, 1998; Gehring, 1997; Kolody, 1997). "Today, educators and cognitive researchers are focusing on how information is learned as opposed to what is learned" (Lefton, 1994, p. 192).

> Learning strategies are the methods and techniques an individual utilizes to learn or acquire knowledge. Learning strategies differ from learning style in that they are techniques rather than stable traits and they are selected for a specific task. Such strategies vary by individual and by learning objective. (Conti & Fellenz, 1991a, p. 64)

Utilization of learning strategies is contingent upon both the circumstances and the current learning situation. "Learning strategies are the techniques or skills that an individual elects to use in order to accomplish a learning task" (Fellenz & Conti, 1993, p. 3).

Adult learning tends to be pragmatic and problem-centered. Learning of this type is often referred to as "real-life learning".

> One of the major characteristics of adult learning is that it is often undertaken for immediate application in real-life situations. Such learning usually involves problem solving, reflection on experience, or planning for one of the numerous tasks or challenges of adult life. Thus the phrase "real-life learning" has been used to distinguish typical adult learning from the academic learning of formal situations that is usually spoken of as studying or educating. (Fellenz & Conti, 1993, p. 4)

Real-life learning in the field of Adult Education has been conceptualized as consisting of the five areas of metacognition, metamotivation, memory, critical thinking, and resource management (Fellenz & Conti, 1993).

Studies based on this conceptualization of learning strategies have delineated three groups of learners with distinct learning strategy preferences (Conti & Kolody, 1999). Through cluster analysis, three categories of learners have been discovered and labeled as Navigators, Problem Solvers, and Engagers. "Navigators are focused learners who chart a course for learning and follow it" (p. 9). Planning and a strong sense of purpose personify both this group of learners and their utilization of learning strategies. Problem Solvers utilize critical thinking skills. Problem Solvers tend to both generate alternatives and test assumptions as a part of their primary learning strategy (p. 12). "The Engagers are passionate learners who love to learn, learn with feeling, and learn best when they are actively engaged in a meaningful manner with the learning task" (p. 13). Engagers enjoy the learning process and derive personal satisfaction from interaction with others.

Methodology

The purpose of this study was to describe the learning strategies of adults at a community college. Although community colleges have a different mission than organizations in business and industry, adult learners at community colleges in many ways are representative of those found in the world of work. Because community colleges are the primary access points for a multitude of diverse students into post-secondary learning situations, those in the business community can gain insights about adult learners by examining those at community colleges. This study, which was conducted in the community college setting, sought to answer the following research questions: (a) what are the identified learning strategy preferences for adult learners at the community college, (b) how do learners in each of the learning strategy groups describe their learning process, and (c) what instructor actions are conducive to learning and what actions by the instructor are detrimental to learning.

This was a descriptive study that involved 456 students at Tulsa Community College's Southeast Campus. A stratified, cluster sample of students was used in which at least 100 students were selected from introductory courses in the four academic divisions of Business Services, Communications, Liberal Arts, and Science and Mathematics. All 456 participants completed the Assessing The Learning Strategies of AdultS (ATLAS) and a demographic survey. ATLAS is a valid and reliable instrument that identifies learning strategy preferences and places a person in the category of either a Navigator, Problem Solver, or Engager (Conti & Kolody, 1999). A total of 45 students were interviewed for a more in-depth exploration of issues related to learning strategy usage and to how instructors contribute to learning for each group of learners.

Both quantitative and qualitative data were collected. Quantitative data were collected using the ATLAS learning strategies instrument, a survey form, and college records. ATLAS can be completed in approximately 2 minutes and produced the categorical data of each person's learning strategy preference group. The demographic survey elicited information about each person's background and gathered each participant's Social Security Number. This number was used at the end of the semester to solicit the person's exact grade point average from the official school records. Nearly two-thirds (63%) of the 456 participants on whom qualitative data were collected were females, and slightly over one-third (37%) were males. The group ranged in age from 17 to 57 with an average age of 23.3. Chi square was used to compare the observed frequency of the learning strategy responses for this group to the expected learning strategy norms on ATLAS.

Qualitative data were gathered from 45 interviews with 15 adults in each of the three learning strategy groups of Navigators, Problem Solvers, and Engagers. The interviews were between 25 and 45 minutes in length and explored factors related to the student's learning process, barriers in this process, and the instructor's influence in this process. The gender and age distribution of those interviewed mirrored that of the general sample. The interviews were recorded and then analyzed to discern emerging themes.

Findings

One of the most striking findings of this study is in the area of learning strategy preferences. In contrast to the expected distribution in the general population, Engagers were over-represented with 54.2% of the population (X^2=105, *df*=2, *p*=.001). Both the Navigators with 23.9% and Problem Solvers with 21.9% were underrepresented. The anticipated distribution based on the norms for ATLAS was 31.8% for Engagers, 36.5% for Navigators, and 31.7% for Problem Solvers (Conti & Kolody, 1999, p. 18).

Each learning strategy group described their approach to learning. Navigators revealed that they rely upon (a) planning and organization, (b) internal and external organizers, (c) grades and feedback, (d) working alone rather than in groups, and (e) monitoring. Navigators can become so preoccupied with academic success and achievement that they become hypercritical of themselves.

> I like to compile information and set it up and work from that to see whatever goal I need to reach. I try to follow the plan as much as possible. (48-year-old African American female)
>
> I am concerned with material that fits into meaningful patterns. I section it out and make outlines and do lists. All of the description [of a Navigator in the ATLAS booklet] matches me to a "T". (21-year-old Caucasian female)
>
> I am very hard on myself. I am never happy with myself or within myself. I am a perfectionist at times. (27-year-old African American female)
>
> I try to be and do what I can do to the best my abilities. Sometimes I go beyond that and do more than I should have to especially in school. My husband says you're only one person. (28-year-old Caucasian female)

Problem Solvers employ (a) a trial and error process, (b) visualization, (c) practical experimentation, and (d) questioning as their primary approach to learning. Problem Solvers utilize questioning not only for their own benefit but also to promote greater understanding for others in the class as well.

> It is easier to understand if I can visualize it. If I can see myself doing it then I can pretty much obtain it. If I cannot remotely imagine it or trying it, then I have no success being there. (24-year-old American Indian female)
>
> I like finding ways around to get what you are trying to get to--finding other routes to get to it. (25-year-old Caucasian male)
>
> When I try to solve a problem, there is an easier way. There are many tactics to use in solving a problem besides one way. Then I come up with how I will do it. Don't set your mind on one spot--use thinking abilities in other areas. Go beyond that and beyond what I'm in now. (54-year-old African American female)
>
> I question a lot, on everything. I feel like I'm the over-questioner to other people afraid to raise their hand and ask a question. If you're thinking it, other people are too, but maybe they are afraid or shy and won't ask. (31-year-old American Indian female)

Engagers tend to take on the attitude the instructor possesses toward learning. If the instructor is passionate about learning, then Engagers will be also. Conversely, if the instructor is disinterested and impersonal, then Engagers will disengage from the learning as well.

> I won't engage if I'm not interested. If I have to do it, I will go through the motions. But once I get started getting into it, it becomes interesting because it is something I don't know. (39-year-old Caucasian female)
>
> I focus on learning not evaluation. Everything I do I give it my all and expect to come out on top. If I'm not learning and I'm not interested, I'm not going to learn. I have to be interested. It has to appeal to me. (41-year-old Hispanic female)

Instructors' actions greatly influence the learning process for the groups of learners (Knowles, 1980). Therefore, each learning strategy group also described the instructor's actions that were perceived to facilitate learning. Navigators indicated that they preferred instructors who (a) were approachable and willing to provide feedback, (b) maintained standards that were challenging but not rigid, and (c) provided clear expectations.

> The perfect teacher is one who shows interest in students and cares if students make it through the class. One who is willing to give one-on-one attention and shows he cares and is there if you have questions. They explain things in detail so you can understand. (27-year-old African American female)
>
> I want to know what is expected of me. It bothers me if the instructor is not real specific. If nobody tells me what is required, then I don't know. (38-year-old Caucasian female)

Problem Solvers desired instructors who (a) allowed them to question and discuss learning in an open forum, (b) utilized a step-by-step process in teaching (c) were thorough, (d) provided a hands-on environment, and (e) promoted the learning of all students in the classroom.

> Class is best if it is an open forum to really interact with instructors and classmates and debate the topic or subject. I like open-ended questions that give you leeway to answer the way you want and instructors who give personal examples. (23-year-old Caucasian male)
>
> I like instructors who had an open forum for talking so everybody understands. They make sure everybody is on the same page. (18-year-old African American male)

Engagers wanted instructors who (a) place learning above evaluation, (b) develop a personal relationship with them, (c) make learning fun, and (d) are passionate about learning themselves.

> It matters a lot. If they don't care and don't have a passion, I don't learn or do as well. If it is not important to him then it's not going to be important to me. (43-year-old Caucasian male)
>
> If I'm not learning anything, it is a waste of time. They make it interesting and make the learning fun. We played jeopardy-like games in anatomy class. We knew the answers to the questions, but we had fun. (39-year-old Caucasian female)

Instructor's actions can also hinder the learning process for the groups of learners. Certain instructor actions can be viewed as detracting from the learning process. Each group described instructor actions that they perceived as distracting from the learning process. Navigators dislike it when instructors (a) do not answer questions, (b) do not provide feedback, and (c) do not explain assignments. Problem Solvers dislike it when instructors (a) do not allow or promote questioning and (b) do not respect students. Engagers dislike it when instructors were (a) dispassionate about teaching their subject area and (b) unwilling to develop a personal relationship with students.

Each learning strategy group utilized different initial actions for learning projects not related to academic endeavors. Navigators referred to (a) deadlines, (b) examples, and (c) the opinions of experts. Problem Solvers referred to (a) having an idea of the broad objectives before they begin, (b) considering the alternative methods of reaching the final goal before making a decision on how to proceed, and (c) visualizing the end results before beginning. Engagers stated that they desire (a) a belief that the learning will be valuable, (b) a need for the learning they are going to undertake, (c) confidence in their ability to accomplish the project, and (d) the possibility for enjoyment in the process before initiating a learning project.

The concept of learning strategies is a developing area that offers those working with adults such as those in training roles in business and industry with ways to address individual differences. This study contributes to the development of descriptions of each of the learning strategy groups and further expands them. For example, Engagers and Problem Solvers see learning as a community activity where cooperation is promoted instead of competition. Engagers exemplify this characteristic primarily through their strong desire to collaborate and work in groups (Conti & Kolody, 1999, p. 14). Problem Solvers in this study were individuals who envision learning as a group endeavor where everyone is responsible for assisting classmates that may not understand the material. Problem Solvers clarify concepts through the utilization of questioning as a technique to allow fellow students to benefit from this process. The notion of teamwork is central to both Problem Solvers and Engagers.

Navigators do not like group work and instead see learning as a collaborative effort between themselves and their instructor. Navigators need external verification or recognition such as grades or a test to validate their learning. They want standards and then want to compete against those standards.

> I don't settle for second best. If I'm going to do something, I do it all the way. If I do it, I do it right. If not, it is a waste of my time. (21-year-old Caucasian female)

Navigators are engrossed by the desire for achievement, and as a result they are always aiming higher and adopting increasingly rigorous standards of performance for themselves. This strong need for perfection may reduce their satisfaction with accomplishments.

The instructor's attitude is critical to the teaching-learning transaction for all three groups of learners. Instructors need to attend to both the affective and cognitive domains to address the needs of all learners. For example, Engagers' performance in teaching-learning situations is contingent upon the establishment of a personal relationship with the trainer. This relationship is the foundation of the learning process for Engagers. They are actively "engaged" in the learning as long as the instructor remains involved and is interested in the subject area. However, Engagers will disengage from learning if the instructor appears to be disinterested in the subject matter or is perceived to be teaching just to earn a living. Instructors that are willing to inspire students may help provide a key component in retaining them in learning situations (Boyer, 1990). One Engager stated his feelings concerning instructors' attitudes as follows:

> If the teacher doesn't care, then I'm not getting my money's worth. I'm not getting their full potential if they don't care. If they care, you can tell you are getting their all and everything they know. You are getting the same knowledge. If they don't care, it is pretty much a waste of time. (30-year-old African American male)

The importance of the instructor's attitude is not only essential to Engagers but is also important to both Navigators and Problem Solvers. Navigators desire attention and respect from the instructor. Navigators want the instructor to be available to them in order to obtain feedback concerning their performance. Problem Solvers want both a more collaborative learning process and respect from the instructor. Problem Solvers also seek a learning environment where their questions and input are both heard and regarded as significant. Additionally, Problem Solvers prefer relationships with the instructor in which they are considered as true partners in the educational process. Clearly, instructor attitudes are essential to all three groups of learners although each is exemplified in distinct ways.

Discussion

The axiom "knowledge is power" has been stated numerous times related to a multitude of situations. Utilizing this statement in reference to gaining information pertaining to one's learning strategy preference is no exception. This is especially applicable in a society where "there is no one education, no one skill, that lasts a lifetime now" (Naisbitt & Aburdene, 1985, p. 141). There is little question that:

> It pays to develop awareness and understanding of self as a learner. One can gain valuable insight into personal blocks to learning, to personal strengths and weaknesses, as well as personal preferences for the methods of learning and for learning environments. (Smith, 1982, pp. 21-22)

Awareness is a central component of learning how to learn. This characteristic is vital because "if you know how to learn, you can adapt and change no matter what technological, social, or economic permutations occur" (Naisbitt & Aburdene, 1985, p. 133).

Providing employees with an awareness of their own learning strategy preference may encourage them to further consider their current strategy utilization. This new awareness could also provide an impetus to further investigate additional methods that could be more effective in improving performance. "Learning strategies provide each student with the potential to adjust in an appropriate way for each learning situation" (Conti & Fellenz, 1991b, p. 20). The ability to expand one's repertoire of available strategies can lead to improvements in both learning and performance.

Learning occurs both in the affective and cognitive domains. Bloom and his associates identified three domains of learning as the (a) cognitive domain which deals with the recall or recognition of knowledge and the development of intellectual abilities and skills, (b) the affective domains which describes values and attitudes and the development of appreciations, and (c) the psychomotor domain which deals with physical activities (Bloom et al., 1956, p. 7). For Engagers, "the affective domain is the dominant factor in learning" (Conti & Kolody, 1999, p. 14). They "consider work as an extension of themselves and are motivated by feelings of satisfaction or pride" (p. 15). However, oftentimes instructors focus only on the content of the learning situation. Such an approach can cause Engagers to feel alienated. By addressing both the affective and cognitive domain learning needs in a training situation, trainers can help provide Engagers with increased self-awareness concerning their feelings and thoughts in certain learning situations. Engagers may feel guilty about not being interested in a specific learning situation and may not realize that their learning strategy preference is making them uncomfortable in particular learning environments. Trainer recognition of both the affective and cognitive learning needs could not only help Engagers realize that there is nothing wrong with them, but it may also provide answers as to why they are uncomfortable in certain situations. By recognizing this aspect of their learning, Engagers can begin to better understand their own behaviors in learning situations. However, Engagers need trainers to attend to both the affective and cognitive components of learning in order to maximize the process.

Knowledge of the principles of adult learning can be effective in establishing a supportive environment that will enhance student learning for all students (Knowles, 1980), and this is particularly so for Engagers. Training in the administration, utilization, and intent of learning strategies could allow trainers the opportunity to incorporate instructional techniques that foster individual differences. It could also provide them with an array of alternative teaching techniques that are specifically designed to meet the needs of each learning strategy group. ATLAS is an easy to administer instrument that trainers could use for this purpose.

Adult learning principles encourage cooperative learning environments, and teamwork is becoming a fundamental requirement in the world of work. A knowledge of the learning strategy preferences of each of the three groups of learners can facilitate this group effort. This is especially important for Navigators because cooperative learning procedures do not support their natural learning strategy preference. In order for this learning to occur, Navigators will need to embrace strategies that incorporate these aspects into their learning process. Knowledge and awareness of alternative learning strategies can provide Navigators as well as all learners with the ability to interact more effectively with others in learning situations. In addition to preferring personally competitive learning situations, Navigators have such a strong desire to seek perfection on learning tasks that in order to help them become more balanced as learners they may need to incorporate the learning strategy of conditional acceptance. Conditional acceptance is the ability of critical thinkers to work at a problem long enough that they become satisfied with the product and move on to new learning (Conti & Kolody, 1999, p. 8). Likewise, a knowledge of such factors as how Problem Solvers use questioning and how important the attitude of the leader is to Engagers can affect how the group works together on learning projects.

The cooperative learning needed in a learning organization can be facilitated by Problem Solvers. Previous studies have shown that Problem Solvers have a tendency to generate a wide range of alternatives related to the learning task and to seek further exploration of topics. This study discovered that one way that they do this in a group setting is through asking questions of the trainer. They ask not only about that in which they are interested but also about that in which they think others in the group are interested. If the trainer and the other learners in the group are aware of this trait, these questions can serve as a continuous formative evaluation of the group's understanding of the content. However, for this to be effective for the group and especially for the Problem Solvers, trainers must reassess the tendency in many training sessions to rigorously lay out a training schedule and to consider only those things explicitly defined in the specified learning objectives as valid learning.

Recent studies have indicated that learners tend to be attracted to learning environments that project an image that is compatible with their learning strategy preference. This study (Willyard, 2000) and a study by James (2000) found that Engagers are overrepresented at the community college and in Adult Basic Education classes. Spencer (2000) and Conti and Ghost Bear (2001) have discovered that Problem Solvers are overrepresented in studies related to learning on the Internet. Even though the learners are not consciously aware of the label or exact description of their learning strategy preferences, Engagers are attracted to the inclusive, learner-centered atmosphere that the community college provides and that matches their learning strategy preference. This could be because community colleges both offer personal environments that are responsive to learners' needs and place the teaching mission above all else (O'Banion, 1999). If this is true for other organizations as it appears to be emerging from the research, then organizations should be keenly aware of the image that they project because this image is sending subtle messages to learners who may potentially be entering the organization. This is especially so for organizations that seek to be learning organizations.

Clearly, learners can no longer be treated as a monolithic group in learning situations. The concept of learning strategies presents a way to quickly identify individual differences among the learners. The typology of Navigators, Problem Solvers, and Engagers identified by ATLAS can be useful for initially identifying groups of learners in the training setting. "Such labels can be beneficial to the selection of appropriate methods and techniques when they are used to focus understanding, discussion, and reflective thought about the learner; however, they can be detrimental if they are used to avoid critical thinking about the learners" (Conti & Kolody, 1998, p. 137). Thus, a knowledge of learning strategy preferences offers the trainer a tool for quickly addressing the needs of each learner and for understanding ways to make learning more efficient for each learner. Equipped with such a tool and such knowledge, the trainer can be in a position to increase the effectiveness of everyone in the organization.

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An Examination of Learning Transfer System Characteristics Across Organizational Settings

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No previous research has compared and contrasted learning transfer systems across organizations and training types, primarily because no standard instruments were used in previous research. This study, based on a subset of responses in the LTSI response database, is the first to conduct such a comparison. Using a sub-set of 1099 respondents, transfer systems are compared across three organization types, eight different organizations, and nine different types of training. MANOVA and univariate ANOVA were used to compare transfer systems. Implications for HRD practice and research are discussed.

Keywords: Transfer of Learning, Transfer Climate, Measuring Transfer of Learning

Transfer of learning has long been an important HRD research issue. Since Baldwin and Ford's (1988) review of the literature over a decade ago, considerable progress has been made in understanding factors affecting transfer. Much of the research has focused on *training design factors* that influence transfer (cf. Kraiger, Salas & Cannon-Bowers, 1995; Paas, 1992; Warr & Bunce, 1995). Another stream of research has focused on factors in the *organizational environment* that influence individuals' ability and opportunity to transfer (Rouillier & Goldstein, 1993; Tracey, Tannenbaum & Kavanaugh, 1995). Other researchers have focused on *individual differences* that affect the nature and level of transfer (Gist, Bavetta, Stevens, 1990; Gist, Stevens, Bavetta, 1991). Finally, recent work has focused on developing instruments to *measure transfer and its antecedent factors* in the workplace (Holton, Bates, Ruona, in press; Holton, Bates, Seyler, & Carvalho, 1997).

Unfortunately, the existing research is, for the most part, *not* action-oriented (Holton & Baldwin, in press). That is, most existing authors have stopped at the point of identifying, describing or measuring factors that may influence transfer without investigating how those factors might be effectively *changed or managed*. For example, of the 58 total studies included in the two most comprehensive reviews of the transfer literature (Baldwin and Ford, 1988; Ford & Weisbein, 1997), only those concerning training design dealt much with change or intervention. One notable exception have been studies examining the effectiveness of two post-training interventions (goal setting and relapse prevention training) with all of them finding enhanced transfer (Burke & Baldwin, 1999; Gist, Bavetta, Stevens, 1990; Gist, Stevens, Bavetta, 1991; Tziner, Haccoun, Kadish, 1991; Werner, O'Leary-Kelly, Baldwin & Wexley, 1994; Wexley & Baldwin, 1986).

Furthermore, as Holton (2000) noted, research has not established whether there is an optimal norm level for components of an organization's learning transfer system. Theory often seems to suggest that the most potent learning transfer systems are those with high levels on all factors. However, cultural variations across organizations suggest that not all organizations will or should build the same types of transfer systems. Case evidence supports this. For example, one organization in which the authors have worked had a very strong team culture that made peer support a more powerful predictor of learning transfer than supervisor support. In a state government agency, the exact opposite was true.

Such case evidence suggests that a different conception is needed. First, it is possible that a total overall level of transfer system factors is needed--not an absolute level on any one of them. That is, transfer system factors may operate together as a constellation to influence transfer. Some elements might be interchangeable or compensate for missing elements. For example, strong reward systems might compensate for poor peer support or transfer design. Alternatively, a fit perspective might be more appropriate whereby certain cultures will require certain elements of a transfer system to be stronger than in other cultures. This perspective would explain why supervisor support is essential in a bureaucratic structure (i.e., government agency), but peer support is less salient. Thus, there would be an optimal level for a given organization with a specific culture.

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Holton (2000) goes on to suggest that it is best to search for *leverage points* for change. It seems likely that the particular factors in an organization's transfer system that are optimal for intervention will vary widely. The leverage point is likely to be a function of the absolute level of a particular factor and its salience in a particular organization's culture. Most organizations would like to see a simple decision rule such as "if supervisor support is less than 3.0, an intervention is needed." This is too simplistic. A value of 2.5 on the supervisor support scale in the government agency might be a critical leverage point, but the same 2.5 found in a team-based organization might not be a leverage point because the supervisor is less important.

Unfortunately, there has been no research investigating the most basic question of how learning transfer systems differ across organizational settings. Previous research has focused mostly on explanation of transfer processes within a specific organization. Before the question of optimal norm levels of transfer factors can be considered, basic questions about differences across organizational settings have to be explored. Identifying differences in transfer systems provides a better understanding of 1) what current transfer systems are like, 2) if current transfer systems are robust in organizations, and 3) what potential transfer factors jeopardize transfer of learning. Understanding transfer system differences across different situations would help organizations become aware of what parts of a transfer system need improvement to enhance transfer of learning. This study empirically examines the differences in transfer systems across eight organizations, three organizational types, and nine training types. It addresses the following research questions:

1 - Are there significant differences in transfer system characteristics between organizational types (profit, non-profit and public sector)?

2 - Are there significant differences in transfer system characteristics between specific organizations?

3 - Are there significant differences in transfer system characteristics between different training types?

Method

Measures. The Learning Transfer System Inventory (LTSI) was developed by Holton and Bates (Holton, Bates & Ruona, in press). The constructs of the LTSI were established based on a conceptual model (Holton, 1996) and previous research (Holton, Bates, Seyler & Carvalho, 1997a, 1997b) validated by factor analysis . It is one of the most robust transfer system assessment instruments developed. A convergent and divergent validity study showed that most of the constructs had only low correlations with other related variables (Bookter, 1999) further reinforcing the uniqueness of the transfer system constructs. Some scales have also shown initial evidence of criterion validity in predicting motivation to transfer, learner perceptions of the training utility, and operating procedure use on the job (Bates, Holton, & Seyler, 2000; Ruona, Holton, Bates, & Leimbach, 1999; Seyler, et al. 1998)

The 16 LTSI constructs provide a comprehensive assessment of factors that influence transfer including program-specific transfer factors and general transfer factors. It is comprised of 68 items grouped into 16 constructs (see Table 1). The 16 constructs were categorized into four major groups: trainee characteristics, motivation, work environment, and ability (Noe & Schmitt, 1986). Trainee characteristics include learner readiness and performance self-efficacy constructs, while the motivation scales include motivation to transfer learning, transfer effort-performance expectations, and performance-outcome expectations. The work environment scales include feedback/performance coaching, supervisor/manager support, supervisor/manager sanctions, peer support, resistance/openness to change, positive personal outcomes, and negative personal outcomes. Opportunity to use learning, personal capacity for transfer, perceived content validity, and transfer design comprise the factors of the ability scales. All of the items use a 5-point Likert type scales from (1) strongly disagree to (5) strongly agree.

Table 1. LTSI Scale Definitions and Sample Items

FACTOR	DEFINITION	SAMPLE ITEM	NUM ITEMS	α
TRAINING SPECIFIC SCALES				
Learner Readiness	Extent to which individuals are prepared to enter and participate in training	Before the training I had a good understanding of how it would fit my job-related development.	4	.73
Motivation to Transfer	Direction, intensity, and persistence of effort toward utilizing in a work setting skills and knowledge learned.	I get excited when I think about trying to use my new learning on my job.	4	.83
Positive Personal Outcomes	Degree to which applying training on the job leads to outcomes that are positive for the individual.	Employees in this organization receive various 'perks' when they utilize newly learned skills on the job.	3	.69
Negative Personal Outcomes	Extent to which individuals believe that not applying skills and knowledge learned in training will lead to negative personal outcomes.	If I do not utilize my training I will be cautioned about it.	4	.76

Personal Capacity for Transfer	Extent to which individuals have the time, energy and mental space in their work lives to make changes required to transfer learning to the job.	My workload allows me time to try the new things I have learned.	4	.68
Peer Support	Extent to which peers reinforce and support use of learning on the job.	My colleagues encourage me to use the skills I have learned in training.	4	.83
Supervisor Support	Extent to which supervisors/managers support and reinforce use of training on the job.	My supervisor sets goals for me which encourage me to apply my training on the job.	6	.91
Supervisor Sanctions	Extent to which individuals perceive negative responses from supervisors/managers when applying skills learned in training.	My supervisor opposes the use of the techniques I learned in training.	3	.63
Perceived Content Validity	Extent to which trainees judge training content to accurately reflect job requirements.	What is taught in training closely matches my job requirements.	5	.84
Transfer Design	Degree to which 1) training has been designed and delivered to give trainees the ability to transfer learning to the job, and 2) training instructions match job requirements.	The activities and exercises the trainers used helped me know how to apply my learning on the job.	4	.85
Opportunity to Use	Extent to which trainees are provided with or obtain resources and tasks on the job enabling them to use training on the job.	The resources I need to use what I learned will be available to me after training.	4	.70
GENERAL SCALES				
Transfer Effort-Performance Expectations	Expectation that effort devoted to transferring learning will lead to changes in job performance.	My job performance improves when I use new things that I have learned.	4	.81
Performance-Outcomes Expectations	Expectation that changes in job performance will lead to valued outcomes.	When I do things to improve my performance, good things happen to me.	5	.83
Resistance/ Openness to Change	Extent to which prevailing group norms are perceived by individuals to resist or discourage the use of skills and knowledge acquired in training.	People in my group are open to changing the way they do things.	6	.85
Performance Self-Efficacy	An individual's general belief that they are able to change their performance when they want to.	I am confident in my ability to use newly learned skills on the job.	4	.76
Performance Coaching	Formal and informal indicators from an organization about an individual's job performance.	After training, I get feedback from people about how well I am applying what I learned.	4	.70

Sample. This study is part of an ongoing data collection effort to validate and improve the LTSI (Holton, Bates, & Ruona, in press). The sample for this analysis was selected from the LTSI response database which currently includes 4562 responses from 15 different organizations in three different countries. When using analysis of variance to examine between group differences, it is important that cell sizes be approximately equal or at least of similar magnitude (Tabachnick & Fidell, 1996). Therefore, only a subset of available responses was used in this exploratory study. Organizations were not selected from the available data if the sample size of these organizations was more than 300 or less than 40. Only U.S. organizations were selected because cross cultural validation on the LTSI has not been completed.

The final selected sample consisted of 1099 individuals employed by eight different U. S. organizations comprised of four private sector (three manufacturing and one services firm), three public sector agencies (one federal and two state government), and one non-profit organization (only one was available in the dataset). For research question three, the training was categorized into nine different types of training including supervisory, public management, technical/computer, soft skills (e.g interpersonal, coaching, and conflict management training), new employee academy, business professional, competency, leadership, and sales training programs. Training type information was only available for 617 of the 1099 respondents in this sample. The decision to select this sample for research question three resulted from the consideration of equal groups and various training types. Training types with more than 200 or less than 35 respondents were not selected in the sample of research question three.

Data Analysis. Multivariate analysis of variance (MANOVA) was used to answer all three research questions because the research questions involved multiple dependent variables (Tabachnick & Fidell 1996; Hair et al. 1998). The sixteen constructs of the LTSI were used as the dependent variables. According to Tabachnick & Fidell (1996), when research questions involve multiple dependent variables, if each dependent variable is tested individually severe inflation of Type I error. In MANOVA, correlated dependent variables are considered simultaneously, eliminating the experimentwise error rate problem.

Post hoc comparisons with univariate analysis of variance was then used to explore the findings in more detail. A Bonferroni adjustment was used because it is most appropriate for multiple analyses when overall Type I error is taken into account (Keselman, et al., 1998). Prior to these analyses, the data were examined for adherence to MANOVA assumptions and outliers were also investigated. No significant violations of assumptions or influential outliers were discovered.

Results

Research Question 1. Research question 1 asked if significant differences existed in transfer systems across organizational types. Organizations were categorized into three types: public, private, and non-profit organizations (see Table 2). Public, private, and non-profit organizations included 475 (43.2%), 432 (39.3%), and 192 (17.5%) respondents, respectively. The ratio of the largest group to smallest group was 2.52.

MANOVA analysis showed statistically significant differences (Wilks' lambda = .718, *F* = 11.632) on all criteria indicating that transfer system characteristics differed across organizational types. Univariate ANOVA tests showed that all of the scales were significantly different across organizational types, with the exception of two scales, learner readiness and performance self-efficacy (see Table 2 below).

Post hoc comparisons were then examined for differences among pairs of organizational types. When comparing public and private organizations, only six out of twenty-six paired comparisons showed significant differences. The results showed that performance-outcomes expectations (M=3.40 vs. 3.15), opportunity to use learning (M=3.68 vs. 3.49), and personal capacity for transfer (M=3.28 vs. 3.15) scales in private organizations were significantly higher than those in public organizations. However, the supervisor sanctions (M=2.75 vs. 2.31), resistance to change (M=2.83 vs. 2.59), and personal outcomes negative (M=2.62 vs. 2.21) scales in public organizations were significantly higher than those in private organizations.

Table 2 - Univariate Comparisons By Organizational Types

		Organizational Type Means				
Training Specific	Overall	Public	Private	Non-profit	F	P
Learner Readiness	3.17	3.13	3.16	3.28	2.39	0.092
Motivation to Transfer Learning	3.97	3.94	3.92	4.18	11.48	<.001
Personal Outcomes-Positive	2.47	2.34	2.39	2.95	44.59	<.001
Personal Outcomes-Negative	2.48	2.62	2.21	2.75	49.68	<.001
Personal Capacity for Transfer	3.20	3.15	3.28	3.14	4.33	0.013
Peer Support	3.41	3.40	3.35	3.59	8.44	<.001
Supervisor Support	3.00	2.98	2.84	3.40	25.00	<.001
Supervisory Sanctions	2.50	2.75	2.31	2.32	41.10	<.001
Perceived Content Validity	3.48	3.51	3.40	3.61	5.89	0.003
Transfer Design	3.99	3.93	3.97	4.19	10.83	<.001
Opportunity to Use Learning	3.57	3.49	3.68	3.51	9.35	<.001
Training in General						
Transfer Effort-Performance Expectations	3.96	3.93	3.95	4.08	5.49	0.004
Performance-Outcomes Expectations	3.32	3.15	3.40	3.54	21.45	<.001
Resistance/Openness to Change	2.69	2.83	2.59	2.56	14.91	<.001
Performance Self-Efficacy	3.76	3.75	3.75	3.84	1.60	0.202
Feedback/Performance Coaching	3.08	3.04	3.05	3.25	6.04	0.002

Using the four major categories of transfer systems discussed earlier, no significant differences were found on trainee characteristics scales in any paired comparisons. On the motivation scales, two out of three scales, the motivation to transfer learning and transfer effort, revealed that the non-profit organization was significantly different from public and private organizations. For the motivation to transfer scale, the nonprofit organization was significantly higher than public and private organizations (M=4.18 vs. 3.94 and 3.92, respectively) while on the transfer effort-performance scale, the non-profit organization was significantly greater than the public and private organizations (M=4.08 vs. 3.93 and 3.95, respectively). This may imply that employees in non-profit organizations are more motivated to transfer their learned skills to the job as well as expect that their transfer effort will lead to changes in job performance than employees in public and private organizations.

Within the seven environment scales, the results showed that the non-profit organization was significantly higher than public and private organizations on four environment-associated scales including performance coaching (M=3.25 vs. 3.04 and 3.05, respectively), supervisor support (M=3.40 vs. 2.98 and 2.84, respectively), peer support (M=3.59 vs. 3.40 and 3.34, respectively), and personal positive outcomes (M=2.95 vs. 2.34 and 2.39, respectively). The results also revealed that the supervisor sanctions (M=2.75 vs. 2.31 and 2.32, respectively) and resistance to change (M=2.83 vs. 2.59 and 2.56, respectively) scales in public organizations were significantly higher than private and non-profit organizations. On the ability scales, the results showed that employees in private organizations had significantly higher opportunity to use learning than employees in public and non-profit organizations (M=3.68 vs. 3.49 and 3.51, respectively).

Overall, the results revealed that the employees in the non-profit organization had higher motivation to transfer learning than public and private organizations. Public organizations had significantly higher resistance to new learning, while private organizations had significantly greater opportunity to apply learning.

Research Question 2. Research question 2 sought to determine if significant differences existed in transfer systems across the specific organizations in the sample. Eight organizations were included in the analysis (Table 3).

Table 3. Sample Description for Research Question 2

Organizations		
	Frequency	Percent
Organization 1 – state agency	175	15.9
Organization 2 – state agency	89	8.1
Organization 3 – federal agency	211	19.2
Organization 4 – manufacturer	118	10.7
Organization 5 - manufacturer	66	6.0
Organization 6 – insurance company	106	9.6
Organization 7 – manufacturer	142	12.9
Organization 8 – non-profit	192	17.5
Total	1099	100.00

The largest group contained 211 respondents and the smallest group included 66 respondents for a ratio of 3.20. MANOVA analysis revealed significant differences (Wilks' lambda = .341, F = 10.787) across organizations indicating that the transfer systems were significantly different across the selected organizations. In the between subject ANOVA, all of the transfer scales were significantly different across the selected organizations (see Table 4).

Table 4. Univariate Comparisons By Organizations

	Organizations										
Training Specific	Overall	No. 1	No. 2	No.3	No. 4	No. 5	No. 6	No. 7	No. 8	F	P
Learner Readiness	3.17	2.90	3.10	3.33	2.99	2.90	3.33	3.31	3.28	8.37	<.001
Motivation to Transfer Learning	3.97	3.98	3.74	3.99	4.06	4.10	3.95	3.68	4.18	8.99	<.001
Personal Outcomes-Positive	2.47	2.13	2.66	2.39	2.34	2.46	2.40	2.38	2.95	17.41	<.001
Personal Outcomes-Negative	2.48	2.09	2.94	2.92	2.15	2.38	2.05	2.29	2.75	40.98	<.001
Personal Capacity for Transfer	3.20	3.39	3.07	2.99	3.20	3.50	3.29	3.24	3.14	7.04	<.001
Peer Support	3.41	3.44	3.22	3.44	3.36	3.48	3.30	3.30	3.59	3.94	<.001
Supervisor Support	3.00	2.96	3.35	2.84	2.79	3.08	2.88	2.74	3.40	11.33	<.001
Supervisory Sanctions	2.50	2.43	3.83	2.54	2.28	2.52	2.16	2.37	2.32	56.29	<.001
Perceived Content Validity	3.48	3.40	3.43	3.64	3.38	3.57	3.36	3.37	3.61	4.05	<.001
Transfer Design	3.99	3.97	3.55	4.06	4.00	4.04	4.06	3.86	4.19	10.44	<.001
Opportunity to Use Learning	3.57	3.61	3.01	3.59	3.66	3.87	3.78	3.52	3.51	13.30	<.001
Training in General											
Transfer Effort-Performance Expectations	3.96	4.09	3.74	3.88	3.97	4.12	3.94	3.85	4.08	7.17	<.001
Performance-Outcomes Expectations	3.32	3.30	2.89	3.15	3.42	3.60	3.44	3.27	3.54	10.02	<.001
Resistance/Openness to Change	2.69	2.79	3.04	2.77	2.64	2.67	2.40	2.68	2.56	7.20	<.001
Performance Self-Efficacy	3.76	3.83	3.55	3.77	3.67	3.75	3.91	3.68	3.84	3.84	<.001
Feedback/Performance Coaching	3.08	3.13	3.04	2.96	2.96	3.21	3.06	3.05	3.25	3.15	0.003

The post hoc comparisons for research question 2 revealed that respondents in organization 2 rated supervisor sanctions significantly higher than any other organization in this study (M=2.83 vs. 2.43, 2.54, 2.28, 2.52, 2.16, 2.37, and 2.32, respectively). This implies that the supervisor sanction issue in that particular organization probably needed to be improved in order to enhance transfer of learning.

Organization 8 appeared to have a substantially different transfer system than other organizations. In organization 8, the performance coaching scale was significantly higher than organization 3 and 4 (M=3.25 vs. 2.96 and 2.96, respectively). The supervisor support scale was significantly higher than organizations 1, 3, 4, 6, and 7 (M=3.40 vs. 2.96, 2.84, 2.79, 2.88, and 2.74, respectively). The peer support scale of organization 8 was significantly higher than organizations 2, 6, and 7 (M=3.59, vs. 3.22, 3.30, and 3.30, respectively). The personal positive outcomes scale of this organization was significantly higher than organizations 1, 3, 4, 5, 6, and 7 (M=2.95 vs. 2.13, 2.39, 2.34, 2.46, 2.40, and 2.38, respectively), and the personal negative outcomes scale was significantly higher than organization 1, 4, 5, 6, and 7 (M=2.75 vs. 2.09, 2.15, 2.38, 2.05, and 2.29, respectively). In summary, five out of seven work environment associated scales in organization 8 were significantly higher than at least two other organizations. This may imply that the work environment in this organization was generally better than other organizations in this study. This result is also consistent with other researchers' suggestions that each organization has its own positive and negative transfer factors that may either promote or prohibit learning and transfer (Mathieu, Tannenbaum, and Salas, 1992; Holton, Bates, and Ruona, 2000).

Research Question 3. Research question 3 sought to determine if significant differences existed in transfer systems across training types. Nine different training types were included in this analysis as shown in Table 5.

Table 5. Sample Description for Research Question 3

	Training type	
	Frequency	Percent
Training 1: Supervisory	67	10.9
Training 2: Public management	110	17.8
Training 3: Technical/computer	38	6.2
Training 4: Soft skill*	44	7.1
Training 5: New Employee Academy	89	14.4
Training 6: Business professional	50	8.1
Training 7: Competency	59	9.6
Training 8: Leadership	42	6.8
Training 9: Sales	118	19.1
Total	617	100.00

* Soft skill training: interpersonal, coaching, and conflict management training

The largest group was 118 (19.1%) respondents; the smallest group was 38 (6.2%) respondents; and the ratio of these two extreme groups was 3.11. MANOVA analysis indicated that the transfer systems are significantly different (Wilks' lambda = .296, *F* = 5.909) across training types. In the between subject ANOVA, all of the scales were significantly different across training types, except for two scales, perceived content validity and performance coaching (see Table 6) .

Table 6. Univariate Comparisons By Training Types

		Training Types										
Training Specific	Overall	No. 1	No. 2	No.3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9	F	P
Learner Readiness	3.08	2.92	2.88	3.45	3.38	3.10	3.20	3.30	3.01	2.99	3.80	<.001
Motivation to Transfer Learning	3.90	4.06	3.91	3.93	3.94	3.74	3.86	3.54	4.03	4.06	4.14	<.001
Personal Outcomes-Positive	2.34	2.50	2.08	2.09	2.14	2.66	2.53	2.36	2.25	2.34	4.99	<.001
Personal Outcomes-Negative	2.28	2.34	2.05	2.04	1.88	2.94	2.11	2.50	2.21	2.15	17.97	<.001
Personal Capacity for Transfer	3.28	3.51	3.45	3.22	3.16	3.07	3.12	3.31	3.45	3.20	4.06	<.001
Peer Support	3.36	3.57	3.43	3.60	3.21	3.22	3.30	3.25	3.29	3.36	2.44	0.013
Supervisor Support	2.94	3.24	2.94	3.00	2.65	3.35	2.87	2.50	2.93	2.79	5.69	<.001
Supervisory Sanctions	2.59	2.30	2.46	2.24	2.37	3.83	2.43	2.46	2.56	2.28	42.76	<.001
Perceived Content Validity	3.42	3.54	3.35	3.47	3.39	3.43	3.38	3.43	3.44	3.38	0.46	0.884
Transfer Design	3.89	4.11	3.92	3.78	3.89	3.55	3.87	3.93	4.01	4.00	4.67	<.001
Opportunity to Use Learning	3.56	3.85	3.64	3.60	3.62	3.01	3.47	3.48	3.87	3.66	12.21	<.001
Training in General												
Transfer Effort-Performance Expectations	3.94	4.08	4.08	3.97	3.80	3.74	3.88	3.85	4.07	3.97	3.83	<.001
Performance-Outcomes Expectations	3.28	3.69	3.25	3.03	3.16	2.89	3.45	3.18	3.39	3.42	6.86	<.001
Resistance/Openness to Change	2.71	2.56	2.74	2.46	2.45	3.04	2.73	2.78	2.75	2.64	4.43	<.001
Performance Self-Efficacy	3.72	3.88	3.80	3.66	3.86	3.55	3.70	3.69	3.71	3.67	2.28	0.020
Feedback/Performance Coaching	3.06	3.26	3.09	3.11	2.96	3.04	3.03	3.09	3.02	2.96	1.14	0.336

Post-hoc tests showed that no significant differences were found on performance coaching, peer support, and perceived content validity scales in the paired comparisons. Respondents who received new employee academy training rated personal negative outcomes (M=2.94 vs. 2.34, 2.05, 2.04, 1.88, 2.11, 2.50, 2.21, and 2.15, respectively) and supervisor sanctions scales (M=3.83 vs. 2.30, 2.46, 2.24, 2.37, 2.43, 2.46, 2.56, and 2.28, respectively) significantly higher than those who received any other training types. However, the opportunity to use scale was rated significantly lower than any other training types (M=3.01 vs. 3.85, 3.64, 3.60, 3.62, 3.47, 3.48, 3.87, and 3.66, respectively). In addition, respondents in the same training program rated personal outcomes positive significantly higher than public management, technical/computer, and soft skill training (M=2.66 vs. 2.08, 2.09, and 2.14, respectively).

Respondents who received competency training rated the motivation to transfer learning scale significantly lower than supervisory, public management, leadership, and sales training programs (M=3.54 vs. 4.06, 3.91, 4.03, and 4.06, respectively). Performance-outcomes expectations for supervisory training was significantly higher than public management, technical/computer, soft skill, new employee academy, and competency training programs (M=3.69 vs. 3.25, 3.03, 3.16, 2.89, and 3.18, respectively). Respondents who received leadership training rated the performance-outcomes expectations (M=3.39 vs. 2.89), opportunity to use learning (m=3.87 vs. 3.01), and transfer design (M=4.01 vs. 3.55) significantly higher than those who received the new employee academy training, while the leadership training respondents perceived supervisor sanctions (M=2.56 vs. 3.83) and personal negative outcomes (M=2.21 vs. 2.94) significantly lower than those who received the new employee academy training.

Respondents who received sales training rated motivation to transfer learning (M=4.06 vs. 3.74), performance-outcomes expectations (M=3.42 vs. 2.89), opportunity to use learning (M=3.66 vs. 3.01), and transfer design scales (M=4.00 vs. 3.55) significantly higher than those who received new employee academy training. Sales training respondents rated supervisor sanctions (M=2.28 vs. 3.83), resistance/openness to change (M=2.64 vs. 3.04), and personal negative outcomes (M=2.15 vs. 2.94) significantly lower than those who received new employee academy training.

Implications and Future Research

This study documents for the first time that transfer systems are significantly different across organizational types, organizations, and training types. While this might be intuitively obvious to those who work in organizations, no previous research had documented and compared transfer system factors as was done here. The results from research question 2 confirm the highly variable nature of transfer system factors across different organizations. It is also distressing to note the overall low levels reported on most transfer system factors. For the most part, employees reported severe weaknesses in their organization's transfer system as evidenced by the number of mean responses hovering around 3.0.

Research question 1, which examined differences by organizational type, showed that all but two scales (learner readiness and performance self-efficacy) were significantly different across types of organizations. Results from private sector organizations showed that employees perceive that changing their performance is more likely lead to valued outcomes, that they have more opportunity to use their learning, can have more capacity for trying new learning. Employees in public sector organizations, on the other hand, perceive that their supervisor is more likely to oppose their use of new methods learned in training, that they are more likely to encounter resistance to change, and are more likely to have negative personal outcomes if they do not apply their training. The nonprofit organization included in this study, appeared to have a particularly strong transfer system with higher motivation to transfer and but if more supervisor support.

Results from research question three were also quite interesting. First, there were no differences in perceptions of perceived content validity across the training types. However, all training was rated with only moderate content validity as the mean score was approximately 3.4. Supervisor support was also rated to low across all training types, confirming the widely held belief that supervisors do not generally support training like they should. The two personal outcomes scales were also low, confirming that organizations generally have not adequately linked training to performance outcomes. The results also indicate at perceptions of transfer system factors vary depending on the type training. This supports the notion that organizational systems' support for transfer varies depending on the type training.

These results also point to the importance of using a diagnostic instrument such as the LTSI. Transfer systems are not uniform and stable but rather vary depending on the type of organization, culture of the organization, and the type training. Human resource professionals in organizations need to diagnose their transfer systems and identify the key factor or factors that will have an influential effect on trainees' transfer of learning. A transfer system survey, such as the LTSI, can be used as a diagnosis tool prior to training and as an evaluation tool after training to examine transfer systems within organizations.

Earlier we introduced Holton's (in press) notion of leverage points for change in learning transfer systems. This study suggests that the leverage point conception may have some merit. The LTSI results suggest that different interventions might emerge for each of the organizations included in this study. Furthermore, these results suggest that different interventions might be needed for different training types within a single organization. Of course actual transfer outcomes data would be necessary to confirm this hypothesis, but it appears to have promise.

It should also be noted that many of the differences between groups were somewhat small. They were statistically significant because of high power due to large cell sizes. Because this instrument has not been heavily utilized in predictive studies, the effect of these differences on performance outcomes is unknown.

Overall, this study is the first to provide descriptive and comparative data about organizational transfer systems. If learning transfer research and practice is to become more action oriented as was advocated the beginning of this paper, it is important that additional research of this type be conducted to better understand the state of the practice and gaps that need to be closed. One of the key benefits of using a standard validated instrument like the LTSI is that we can begin to make comparisons across organizations as was done here. Prior to development of this instrument, such comparisons were not possible because each study tended to use its own unique measures. As work continues with the instrument, new insights on the dynamics of organizational transfer systems are expected to emerge.

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The Real Debate: Who Does Human Resource Development Serve?

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The findings of a recent qualitative study raises the possibility that the question driving the on-going debate of performance vs. learning is actually the wrong question, and, furthermore, that the fragmentation of the profession into these "camps" simply does not depict true and important differences separating various approaches to HRD. We must begin to engage in philosophical activity in HRD to elucidate issues central to deeply understanding the field and the important differences in it.

Keywords: Philosophy of HRD, Purpose of HRD, Qualitative

The debate about the purpose of human resource development (HRD) has raged in our literature during the last 10 years. The answers that have emerged thus far have been presented as two "camps", each advocating its own aim—one argues that HRD is for the ultimate purpose of improving performance (Swanson, 1995) while the other argues that HRD is for the purpose of learning (Watkins and Marsick, 1995). The focus has been on the perceived dualism between these two goals, and the issue has taken center-stage at international conferences, dominated entire monographs, and is debated in numerous articles.

The findings of a recent qualitative study (Ruona, 2000, 1999) raises the possibility that the question driving this on-going debate is actually the wrong question to be asking, and, furthermore, that the fragmentation of the profession into the performance vs. learning "camps" simply does not depict true and important differences separating various approaches to HRD. One certainly intuitively suspects that there are emerging paradigms in HRD—each approaching the practice and theory of HRD with their own set of underlying assumptions, values, and core beliefs about its purpose and aims, values, and practices. However, we should not be too quick to assume that the two emerging paradigms are performance vs. learning, or that there are only two paradigms!

Instead, we must begin to ask different questions that will elucidate issues central to deeply understanding HRD and the important differences in the field. Philosophy, at its core, is disciplined reflection, and it is the activity that best enables us to do that. While philosophical activity in HRD has thus far been rather limited, with notable exceptions (Barrie and Pace, 1998; Kuchinke, 2000; Marsick, 1991; Watkins, 1991), it must be rigorously pursued to gain clarity about the assumptions that are driving practice and knowledge building in HRD, and to stimulate dialogue about critical issues facing the field.

Purpose and Research Questions

The purpose of this paper is to share the strongest theme that emerged from a larger study. To provide some background, the purpose of the study was to explore beliefs underlying the profession of HRD. In order to do this, the inquiry explored assumptions and beliefs of scholarly leaders in the field. Specific objectives were to:

1. Explore core beliefs underlying participant's ideas of excellencies to be produced by the profession;
2. Analyze the findings to identify common and divergent beliefs across participants of this study.

The findings presented here represent only one part of the study's findings which were quite extensive. The focus reported is limited to the issue of who HRD serves which was a naturally emerging theme from that qualitative data.

Organizing Framework Underlying Original Study

The organizer for this study, "If the profession of HRD was excellent in all ways, what five-seven things would be true?", was the guiding question posed to all participants. It originates from an interpretation of Frankena's (1965) framework for analyzing a philosophy, and Magee's (1971) revision of that framework (see Figure 1). The

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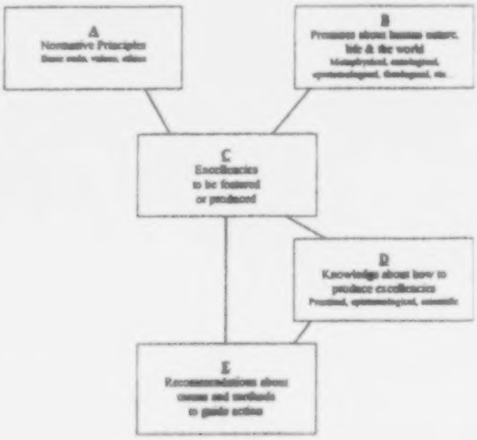
framework is based on the discipline of logic, and forwards the proposition that practical precepts about what should be done must be supported by a line of reasoning that justifies those conclusions. Therefore, he states, that any normative philosophy has two parts:

Figure 1. Organizing Framework for the Original Study.


A
Normative Principles
Basic ends, values, ethics
B
Premises about human nature, life & the world
Metaphysical, ontological, epistemological, theological, etc.
C
Excellencies to be fostered or produced
D
Knowledge about how to produce excellencies
Practical, epistemological, scientific
E
Recommendations about means and methods to guide action

> (1) a comparatively philosophical and theoretical line of questioning involving A, B, and C, to show what excellencies are to be cultivated…, and (2) a comparatively empirical or scientific and practical line of reasoning, involving C again and D and E, to show how and when they are to be cultivated. The conclusions of the first part become the premises of the second part. (p. 9)

Although this framework has been used only in the philosophy of education, it is believed to be a potentially valuable framework to help analyze and map beliefs in the profession of HRD. This study is an effort only to begin that journey by asking HRD scholarly leaders to surface their ideas of excellencies to be produced, and probe those for core beliefs driving them.

Methodology

This was an exploratory and descriptive study, using qualitative methods. Initial in-depth, face-to-face, interviews were conducted with eight of the ten participants, and two were phone interviews. Each participant was provided with a worksheet to prompt their thinking which simply stated the following organizing question: "If the profession of HRD was excellent in all ways, what five-seven things would be true?" Participants were directed to use this question as a springboard to spur conversation during the interviews and were instructed that the focus of the interview would not be on their list of excellencies, but rather on the assumptions and beliefs driving those ideas of excellencies. These initial interviews were unstructured to facilitate discussion of topics raised by the participants.

All interviews were approximately two hours long and were audio-taped. Interviews were transcribed professionally, and were carefully verified by the researcher. In addition, member checks (Guba & Lincoln, 1989) were conducted with each of the 10 participants to ensure accurate interpretation and to discuss follow-up questions. These were tape-recorded phone conversations that were then partially transcribed by the researcher.

Sample

Qualitative inquiry focuses on in-depth, small, information-rich cases selected purposefully. It was estimated that members of the scholarly community might be well-suited for participation in this study because of (a) their intense and scholarly interest in HRD and (b) the likelihood that this was a pool of people who are quite familiar with a diverse range of issues facing the field, and have done quite serious thinking on issues related to HRD. All participants were then chosen on the basis that they have served a leadership role in a scholarly association related to HRD. That is, each participant has been either: (a) an incoming, current, or past president of the Academy of Human Resource Development (AHRD), or (b) a current or past chair of the American Society for Training and Development's (ASTD) Research Committee. This sampling criteria was chosen because (a) they represent two primary scholarly associations of the field, (b) leaders of these associations are elected/nominated by their membership, (c) these are active scholars who have made marked contributions to the field of HRD. The current and previous four leaders from each of the associations were solicited for this study, and are listed in Table 1. All participants solicited agreed to participate in the study, and agreed for their names to be published. However, quotes/excerpts are *not* accompanied with a name, and information that might make it possible to identify the participant has been edited out of any published documents.

Table 1. Scholarly Leaders Participating in the Study

AHRD Presidents	ASTD Research Committee Chairs
Gary N. McLean (2000-)	Victoria J. Marsick (1997-1999)
Elwood F. Holton (1998-2000)	Darlene Russ-Eft (1994-1996)
Richard A. Swanson (1996-1998)	Ronald L. Jacobs (1991-1993)
Karen E. Watkins (1994-1996)	Timothy Baldwin (1991)
R. Wayne Pace (1993-1994)	Neal Chalofsky (1989-1990)

Analysis

Qualitative data analysis demands inductive reasoning to search for important meanings and patterns in what the researcher has heard and seen. The process used to analyze the data was based on the constant comparative method (Maykut and Morehouse, 1994) and generic coding procedures. These included analysis of three interviews to develop an initial coding scheme, extensive review of all transcripts, recursive evolutions of the coding scheme, the use of an electronic database to facilitate queries and coding, and two peer reviews.

Findings: Who HRD Serves

One of the most provocative questions raised during the interviews conducted for this study was a rather simple one, but one that brings this question of who HRD serves to the forefront: for what end do HRD professionals do their work and for who's benefit? The participant that raised this shared a story of a person who recently asked him whether HRD was about developing the human resources of an organization or about developing the resources of the human. The answers that emerged and were categorized in this theme indicate a few different perspectives.

The goal of this section is to provide a creative, descriptive, and interpretive account of this theme entitled "Who HRD Serves". The focus is on reporting the sub-themes that emerged with an attempt, given the limited space provided here, to hear the voices of the participants of the study through excerpted quotes from the interview transcripts. Excerpts from actual interviews are separated from the text and are bulleted by a double-quote (").

HRD Serves Individuals: Developing the Resources of the Human

A strong commitment to individuals and human development emerged here as one participant explicitly stated:

> "The HRD profession would be excellent if it saw its role as being responsible to and for individual workers rather than management. "

This quote represents this sub-theme well as a perspective that emphasized that HRD should put people and their needs first, over and above those of the organization, because it is defined by its work with people.

> "We are defined in part by our work with people, of human resource development. So fundamentally it has to do with people.

Part of how this was demonstrated was through a strong focus on individuals and helping them to fully develop. Building on a notion of whole-person development versus development based on solely job/organizational needs, these participants advocated development of the whole person to his/her optimal potential:

> "It is the development of people that is the goal of HRD.
> "...we're all about helping people reach their potential...

When asked about who defines "potential", the answer was that the individual does because individuals inherently work towards self-actualization—striving to grow and work in creative and meaningful ways.

Putting People First Pays-Off. Putting people first was justified because, according to these participants, investment in people pays-off for the organization. While the people that advocated serving the unique needs of the individual first downplayed the needs of the organization, they were not ignorant of them. These participants believed either that tending to people is what best positions the organization for optimal performance, or that HRD simply should not focus on organizations at all. The following quotes emphasize these perspectives:

> "A really good organization that puts people first is going to be profitable anyways, because people are going to want to work for them and be productive and loyal. If you put people before profits, you're going to get your profit anyways—it's where you put your effort and energy and focus.
>
> "Business decisions that are made on the bottom line are uniformly unsuccessful. …They're focusing on the wrong thing. You don't get success by focusing on success, you focus on other things. If you focus on taking care of your employees, they will make money for you.

Minimize Focus on Profit. Moreover, participants also surfaced some suspicion about organizations that focus too heavily on achieving profit over all other things. The commitment to whole-person development was also held up as a more worthy goal than that of chasing profit—emphasizing that profit in and of itself is not bad, but there must be additional, more humane goals:

> "To them it's margin, it's not about people.
>
> "…there's just too much power and greed and we see it in all our daily lives. …it's just power and accumulation. …but again if that's what we're all about—helping organizations and CEOs become multi-millionaires, I don't want any part of that. There's gotta be something more…got to be a hell of a lot more. And to me the "more" is that I'm in this for people.

Finally, one participant took a much stronger position that focuses solely on human development, regardless of whether profit or organizational performance ensues. And another participant stressed that the organization should be seen as secondary to serving the needs of the individual

> "If you don't develop, if you don't make the person, then even if you make a profit, it's not worth it. It's the development of talent that's important. That may result in a profit, it may not result in any profit—and that doesn't make any difference! …That should not be a consideration in this field at all, and the person who makes that the consideration misunderstands the nature of the field.
>
> "Organizations for me are important in helping individuals achieve their purpose in life.

Putting people first was justified because, according to these participants' beliefs, investment in people pays-off. Thus, organizations were encouraged to focus on people and development (and other worthy goals) and to view profit as a by-product of doing the right things.

HRD Serves Organizations: Developing the Human Resources of an Organization

This emphasis on serving the individual first and having confidence in the return-on-investment for the organization is quite different from an alternative approach that emerged during this study, as represented in the following quote:

> "We would be excellent if we were seen as furthering the mission of the organizations or entities that sponsor our efforts.

The excellency described above is the antithesis of the excellency that opened the former section which placed serving the individual first. In this perspective, HRD is primarily responsible to and for the organization. That HRD should primarily serve the organization was tied to the idea that HRD is sponsored by organizations and, thus, should be the primary client. One person interviewed for this study listed the following excellency:

> "The profession would be excellent if we understand that the system is always the client…the simple answer would be (from Wilfred Beham's work at Tavistock on to Lewin and Argyris) that the thing that created the field of OD was that they moved beyond the individual as the unit of focus. …The real stakeholder has got to be the system—that's where the money is coming from, that's the only reason you're there. HRD is fundamentally hosted by some organization or system, it's not a free-floating system.

Aligned with this presumption that HRD is sponsored by organizations and a personal understanding of how organizations function were also strong beliefs that HRD should support organizational mission and contribute to enhanced organizational performance:

> "What distinguishes HRD from general education is that it is sponsored by or it's within the boundaries of some kind of organization that has a purpose…and that it should be engaged in furthering that mission.
>
> "And so this is the business side of me. You know, I was born and raised in a family business and understanding that you have customers. You have decided what the fundamental purpose of the organization is and, as a result of that, anything that doesn't align itself with that is vulnerable to be picked off, thrown away, not taken seriously. I understand that and it's OK.

Here is a strong expression of how HRD should be contributing to the purpose of the organization—aligning with its mission and helping the organization achieve its goals while also helping it to connect it's parts to the system whole. This was reiterated by someone else, too, when speaking about who HRD's primary client is:

> "So when I go into a department, for instance, I'm very interested in how that department is working to enhance the overall organizational mission. And so my role is to help them see that—to help them see the connect or disconnect between what they're doing and what the system is doing.

The realities of organizations seemed to dictate to some participants that HRD serve those needs. A strong concept that emerged was about how organizations are not in the business of learning, and the need for HRD to realize this and work towards the goals of its sponsor:

> "Organizations are not in business to learn. They're in the business to perform, and learning is a vehicle to that.
>
> "I wonder where does that come from? Where do you get the belief that you have the right to exist and to be awarded resources day in and day out? In the final analysis you're only to get what you get based on merit—because you've earned it.

Mission, Not Just Profit. People who advocated supporting organizational mission and helping organizations to achieve more also emphasized that this should not be mistaken as a unabashed emphasis on increasing profit. For instance, one person reflected:

> "I've never understood why the so called "performance perspective" which is really mission-oriented is a problem. It's goals, vision, purposes—you know, what it is it's trying to do. You're doing it for organizational or system intent.

This quote was a part of a larger discussion about how working towards the achievement of organizational goals has often been misinterpreted, according to this participant, as a focus on only profit. This participant believed that the focus on mission and goals of the organization is a valid assumption for any type of organization (i.e non-profits, government, community organizations, unions, etc…).

More over, participants called for not mistaking this focus on system intent as a heed for short-term profit at the expense of all else. Some people interviewed for this study consider there to be a more ethical focus on helping organizations achieve many kinds of performance, and for both short- and long-term interests. These participants encouraged HRD to deal with managing the tension between short- and long-term investment and short- and long-term return on that investment.

Putting Organizations First Pays-Off. Just as the people that advocated primarily serving individuals did not ignore the needs of the organization, so too the people that advocated putting the organization first did not ignore serving the needs of the individuals. The following quotes demonstrate this:

> "When you look at the issue of impact, to me, the key criteria is that organizations function better, profit more. Then, as sub-set of that, in fact, the way that organizations function better is that they treat their people better—that they have better learning and better people practices.
>
> "Organizations need us to help them thrive in a changing world, if they don't do that they're pretty marginal overall. Then as part of that…I think they'll see clearly that we improve people's lives.

Finally, there was some discussion from two different participants about the challenges associated with balancing organizational needs with those of individuals:

> "If you want to keep jobs, if you want to sustain those things, if you want the most number of jobs for the most people, if you want the top executives to change their thinking and their work behavior, you want the work processes to fundamentally change to be not only better but also more humane…boy, you're going to run into the meat grinder. That's tough work! The easiest thing for an HRD person is to be a humanist at the individual level. Piece of cake!

Not a Blind Tool of Management. Serving the needs of the organization was not to be misinterpreted as HRD being a blind tool of management. Some participants called for HRD to use its commitment to individuals as courage to stand up for and demand better, more humane people practices, as demonstrated in the following:

> "We would be excellent in all ways if we became advocates, in fact, champions for HRD practices with ethics and integrity. So, like any profession, I think we have the obligation to battle against unethical practices.

Another person talked about how a deep belief in human beings demands courage from HRD professionals:

> "…at that point it takes an enormous amount of courage…if that's our job…to talk back to the system, the organization, about it's behavior, it's system, it's logic, it's inadequacies. You know, if you're supposed to be enhancing the whole organization and that organization is violating all your core beliefs, then you have to make some decisions at that point. You have to challenge, you have to have courage to advocate for those core beliefs. So I think that they get your stomach in knots.

Serve Multiple Stakeholders: Win-Win-Win

Still yet there was another perspective emerged during this research as a few participants made a plea to stop all this talk about choosing *either* the organization *or* the individual as HRD's primary client. They said:

> "But it's the either/or stuff again that gets difficult for me. Well it goes back to, again, an issue that has been confronting the field…and I get irritated every time I see it…when people get into the argument about whether HRD is

> performance or learning. Well, it's just a dumb question to start with! But it goes back to my perception of how much we are driven by either/or questions. Instead of trying to find an "and' question that helps us to embrace a larger and bigger piece of what has the potential of impacting lives in the positive way.

First of all, some people pointed out, HRD actually serves many more than just two clients. Two people pointed out that, at the very least, there are three stakeholders and there should be a more expansive view of stakeholders:

> "...there's at least a triadic relationship in any endeavor—the consultant is working for a client, while the beneficiary is somebody else. And so who do we serve?

> "The profession of HRD would be excellent if it recognized the importance of multiple stakeholders. That HRD serves a whole variety of stakeholders—not just management, not just the workers, not just the people sitting in training classes, not just the people who buy the training programs, but they serve a wider community...presumably they even serve the shareholders of the company in some form or another.

Recognizing that more stakeholders presents increased responsibility to balance and work towards the mutual win of many, one person explained that what was needed was a new focus on win-win-win:

> "You know, I've done a substantial amount of work with unions. And this whole idea of not a win-win situation but a "win-win-win" situation—win for the organization, win for the union, win for the individual members. So how do you converge outcomes for these partnerships? How do you get win-win-win situations? But the idea is that it would be not just a hope, but a declared intent with outcomes explicated of what those wins might be.

Two other participants talked about how focusing on multiple stakeholders rather than an "either/or" scenario also necessitated weighing conflicting goals more explicitly to achieve that win-win-win.

Just as some advocated a new conception of multiple stakeholders, another person emphasized that the artificial choice between learning and performance was insufficient to guide the aims of HRD, and discussed how HRD should honor multiple goals or outcomes such as integrity, climate, globalization, and peace. This certainly indicates a move towards a more expansive notion of who HRD serves and what it does in the process.

Analysis of Findings: Who HRD Serves

An analysis of the findings reveals three distinctive sets of beliefs about who/what HRD serves. Each is briefly summarized below, and some of the logic within each set begins to emerge. Some key insights are also discussed.

HRD Serves Individuals

The driving force to serve individuals emerged very strongly from one group of participants interviewed for this research. For them, HRD is defined by its work with people, and, as a result, there must be a deep commitment to help people grow, actualize, and achieve self-fulfillment. This commitment to individuals was contrasted with a much lesser commitment to organizations, or, as for some interviewed, by a strong resistance for HRD to work "for" the organization. People who spoke of serving the needs of individuals had strong ideas about putting people first, and a few felt that that should be done regardless of the organization and their needs. There was little discussion about potential needs of the organization or of HRD's role in helping organizations to fulfill those needs. Nor was there discussion of balancing individual and organizational needs. Rather, the focus was largely on the individual.

A few participants did acknowledge that there would be an eventual pay-off for the organization that invests in people, however there remained a clear distaste for organizations that focus too heavily on profit. This suspicion was reinforced by one participant who explained that HRD professionals who approach their work from the "performance perspective" abuse employees and fundamentally misunderstand the profession of HRD. This is a clear signal of a very different belief system than the one that is described in the following sub-theme that advocated serving organizations.

HRD Serves Organizations

This sub-theme introduced what can only be characterized as almost the polar opposite of that forwarded above. Here value was placed on serving the needs of the organization, and helping the organization that sponsors HRD achieve its mission. Indeed, it was implied that HRD is fundamentally defined by its work in and for organizations.

Both of the above positions (serving people and serving organizations) seemed to agree with the logic that effective people practices make for an effective organization. However, as one participant pointed out, it has more to do with how one approaches that belief. This group heavily focused on the organization's effectiveness and advocated effective people practices as a primary tool to help achieve that success. While the group that advocated serving individuals approached this primarily from the individuals' perspective. This is a very fine, but significant distinction between these two sub-themes.

Another thing revealed in the data from was a rather different view of organizations. Organizations were viewed as existing to achieve mission/goals. Although the role of organizations was simply not talked about as explicitly in the sub-theme detailed above, there was clearly less valuing of the organizations mission/goals, and a more negative connotation of organizations and their motives. In the "serve organizations" sub-theme, however, there was clear acknowledgement that organizations exist for reasons other than to help people learn, and that HRD should be aligned with the system's mission/goals, within some ethical boundaries around humane and fair human resource and business practices.

What was even more interesting is that the participants that grounded themselves in serving organizations did not say that they would choose the organization *over* the individual. It was not an either/or dichotomy for them, as it seemed to be for the group where individuals were chosen *over* the organization. In this sub-theme, commitment to the organization was not assumed to be at the expense of individuals—the commitment to individuals, their development, and good treatment was assumed and deeply held. Additionally, a few participants in this section talked about the challenge of balancing the sometimes conflicting needs of organizations and the individuals. This was characterized as a struggle, and appeared to be an issue that they actively dealt with in their work.

Contrasted with this, the group that focused primarily on serving the needs of individuals did not pay much attention to the organization. A few individuals emphasized that organizational needs should come second, and there was little apparent struggle to balance conflict between the individual and the organization. In fact, one person in that section commented that organizations would have to succeed *in spite of* HRD. Whereas the group that supported serving the organization would most likely say that organizations succeed *because of* HRD.

HRD Serves Multiple Stakeholders

This idea of "win-win-win" for multiple stakeholders and in multiple ways can almost be characterized as an extension of the sub-theme that emerged above which reflected on balancing the needs of the individual and the organization. The emphasis here, though, was much stronger on being explicit about who potential stakeholders might be, what aims each has, and how all parties involved can optimize around those goals. This is such an important idea for HRD! As can be seen in both the results of this study as well as in much of the HRD literature, the discussion of who is served by HRD has been traditionally dominated by an either/or paradigm. As a result, the conversation has focused on choosing one or the other rather than exploring what it truly might mean to balance multiple stakeholders and multiple aims. There is a clear need for better and more explicit models of partnering for "win-win-win" and for managing divergent needs.

Conclusion & Implications for HRD

An analysis of the rich quotes of these scholarly leaders reveals that there are points of convergence and divergence among the beliefs forwarded. The ideas held in common (strong commitment to individuals and the idea that good human resource practices benefit the organization) offer a few foundational beliefs that may be considered as core to the HRD profession. Identifying just a few core beliefs is a critical first step in forming a philosophical foundation for the profession—a foundation on which values, morals, ethics, and best practices will be built. This activity is important in order to ensure the advancement and excellence of the profession, as well as to better differentiate HRD from other human resource professions. In this way, then, this study has helped to elucidate a few potential organizing principles for HRD by tapping the wisdom of experienced and leading scholars.

It is also important to note key differences among these leaders. It is vital that divergent viewpoints develop over basic questions such as those that emerged here, and it is our responsibility to explicitly surface and analyze them. Magee (1971) tells us that "one of the tasks of philosophy is mapping the logic of…discourse, laying it out, so to speak, so that a person can make his way about it successfully" (p. 45). A central finding of this research raises the possibility that the current discourse focusing on the question of the purpose of HRD and the two opposing "answers" of performance vs. learning may actually not be the correct question or answer at all. Rather, these findings show that issue of who HRD serves is a much more telling and divisive issue, and one that may point to two or more distinct emerging paradigms in HRD.

These similarities and differences must be extensively explored in future research so that we can continue to question that which is core in HRD and to identify the divergences which mark various emerging schools of thought within the field. Even with these initial, exploratory findings, we can no longer postulate that core differences in HRD knowledge and practice are attributable to the camps of performance vs. learning, and we also can no longer continue assuming that all HRD practice and knowledge is derived from and lives in one school of thought. Rather we must acknowledge emerging schools of thought and thoroughly articulate them. It should be clear what the belief systems are, how they vary from one another, and how different belief systems impact the practice of HRD.

Future research should include additional in-depth study of beliefs underlying HRD and the interplay of these beliefs with HRD theory and practice. This study will soon be replicated with a set of leading practitioners to explore any similarities and differences from the academics interviewed here. In addition, many more HRD professionals could be queried about the beliefs that drive their actions in HRD. This can be done by replicating the methodology outlined in Ruona (1999) as well as by conducting extensive surveying. Innovative methodologies such as critical incidents and case studies are also promising as effective tools to uncloak beliefs and share them with the profession for consideration and on-going dialogue. And, of course, the organizing framework for the study should be utilized in future research as a tool that will help HRD scholars question the logic of core beliefs that are forwarded to begin to truly map sound, integrated belief systems.

The hope is that this research will help the field to better navigate through key issues it is facing and really begin to explore the deep assumptions that drive the field. It is at this level that generative conversations take place and real change begins.

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Theorising Human Resource Development

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In the UK the academic status of HRD is problematic and has only recently become a significant part of the university curriculum. Part of the 'problem' of HRD relates to the research base which underpins the subject. This paper attempts to derive a conceptual 'map' of HRD in the UK. thus it's focus is on the process of theorising HRD rather than presenting a particular position on HRD theory. The paper does not report specific research findings.

Keywords: HRD in the UK, theorising process, holographic metaphor.

This paper draws upon the emerging body of research in HRD, primarily UK-based, which provides the underpinning for the conceptual, theoretical and practical advance of HRD. We aim to provide an overview of many of the conceptual and theoretical concerns surrounding the meaning and understanding of HRD. These issues and concerns relate to both the ontological and epistemological perspectives on HRD, which in turn influence our vision of researching and understanding HRD. The paper offers a contribution to the on going debate surrounding the theoretical foundations of HRD (Lynham 2000; Walton 1999) and the purpose and value of HRD professional practice (Holton 2000). The paper presents an analysis of the key tenets of the various positions in these debates. In doing so, we provide a comparison of American and European conceptions of HRD. This informs the overview of the diversity of research philosophies, processes and practices currently being applied in the UK. The paper also draws on the work of Keenoy (1999) a sharp critic of the literature of HRM and tries to apply his critique into a better conceptual understanding of HRD by developing a metaphor of HRD as a 'hologram'.

Theoretical Context

The process of defining HRD by academics, researchers and practitioners is proving to be frustrating, elusive and confusing. This suggests that HRD has not established a distinctive conceptual or theoretical identity (Garavan et al., 2000; Hatcher, 2000). The process of defining HRD is *frustrated* by the apparent lack of boundaries and parameters; *elusiveness* is created through the lack of depth of empirical evidence of some conceptual aspects of HRD. *Confusion* arises over the philosophy, purpose, location and language of HRD. This is further complicated by the epistemological and ontological perspectives of individual stakeholders and commentators in the HRD arena (Swanson et al., 2000). All research, to varying degrees, is tied to a particular theoretical framework and to a general body of knowledge. This, in turn, is the product of a complex interplay of philosophical arguments thus, the 'complication' noted by Swanson (op. cit.) is perfectly natural but renders the task of analysing the 'meaning' of HRD more difficult. Inevitably this draws us into the realm of philosophy.

Philosophical and Conceptual Dimensions

As Swanson et al (2000) argue "philosophy is a systematic examination of the assumptions that underlie action" (p. 1126). Therefore, in order to understand action, in this case HRD research, it is necessary to engage with philosophies of HRD to make explicit the rationales underpinning competing perspectives.

They put forward three interactive elements of the philosophical framework of HRD. These are, firstly, *ontology* (how we see our world); secondly, *epistemology* (how we think about our world) and, thirdly, *axiology* (the

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values that determine how we should and actually act in research and practice). The dynamic relationship of these three elements will influence an individual's understanding and expression of HRD. Therefore it is useful and appropriate to address philosophical issues in attempting to understand HRD. This has been strongly reinforced recently by the publication of a thoughtful collection of reflections on the philosophical foundations of *HRD practice* by leading US academics in the field of HRD. (Ruona & Roth, 2000)

The philosopher Thomas Kuhn first introduced the idea of scientific paradigms in his path-breaking book *The Structure of Scientific Revolutions* in 1962. This book has proven to be seminal in the development of theory and research in the social sciences and is likely to have an equally profound and enduring influence on the conceptual and theoretical development in HRD. The concept of paradigms, introduced by Kuhn (1962), is often used to describe philosophical frameworks informing and guiding scientific research. McAndrew (2000) usefully applies this notion in analysing significant influences on HRD theory and practice.

One of the best-known paradigmatic frameworks is that developed by Burrell and Morgan (1979). They forward four broad paradigms, which affect the development of social theory. These are the *functionalist paradigm*, which assumes an objective, social reality, which can be empirically analysed and understood through application of scientific methods. Social systems are seen as inherently concerned with stability and continuity to serve regulatory purposes. The *interpretive paradigm* assumes that individuals and their interactions create social reality, subjectively. Multiple social realities are created maintained and changed and there is no single, objective entity to be analysed and understood. However, in common with the functional perspective, the interpretive paradigm assumes an underlying pattern and order in the social world, i.e. regulatory focus, rather than a change orientation. Much of Burrell and Morgan's (1979) insights still inform contemporary debates in organisational analysis.

The *radical humanist paradigm* assumes that reality is socially and subjectively created and therefore not capable of objective analysis seeing social institutions as negative in the sense of constraining and controlling human thought, action and potential. These negative aspects tend to alienate rather than focuses on positive outcomes. The concern is with radical change rather than regulation. The *radical structuralist paradigm* assumes that social systems have independent, concrete and objective existence and are capable of scientific analysis. This perspective also encompasses social systems as oppressive and alienating and assumes an inherent drive for radical change in society.

Variants of these arguments are evident in the emergence of new perspectives on HRD framed as *post-positivist* (Trochim, 1999) and *critical realist* (Sayer, 2000) positions. The former of these develops elements of the Burrell and Morgan functionalist and interpretive paradigms whilst the critical realist perspective takes forward a concern with meaning and interpretation that echoes the radical humanist and radical structuralist paradigms. However these have not crystallised into a simple bi-polarisation. Rather the whole area is characterised by *paradigm incommensurability*, which in turn reflects an impact on methodological development.

To date, there appears to be little sustained and detailed attention given to philosophical influences on HRD, but as Kuchinke (2000) argues "paradigm debates can deepen theory and provide the foundation for new research" (p. 32). This view is supported by Swanson et al (2000), amongst others who identify implications of philosophy for research, theory building, practice and the evolution of HRD. The role of the varying paradigms discussed here, representing as they do different philosophical frameworks, in shaping HRD theory and practice is well illustrated by the work of Lynham (2000). It is evident that a significant outcome of adopting different paradigms will be varying emphasis on the possible alternative purposes of HRD.

This variety of perspectives demonstrates vividly that there is no dominant paradigm of HRD research. It also illustrates what may be meant by 'paradigm incommensurablity' in organisational research. However such a position is healthy. There is no *single lens* for viewing HRD research and there are *many voices* expressing opinions. It may be that, as HRD academics become more sophisticated in theorising, then greater clarity and paradigm commensurablity will occur. It may also be the case that the increasingly influential discourse of postmodernism, which is strongly established in the field of organisation studies (Alvesson & Deetz, 1999; Burrell, 1999) and is now evident in the literature of strategic change, will come to have an impact on HRD researchers (Ford & Ford, 1995).

Purpose of HRD

Lying behind the main philosophical debates concerning the nature of HRD, there is a concurrent set of debates concerning the purpose of HRD. According to Holton (2000) the debates on purpose centre on the *learning* versus *performance* perspectives. Should HRD practice focus on the well being of the individual or should interests of the shareholders predominate? This section presents a rudimentary map of what the various claims of the purpose of HRD might be. Hatcher (2000) proposes that HRD research should focus on the economic benefits, systems theory, social benefits and ethics of HRD and thus indirectly attempts a reconciliation of these two perspectives.

Kuchinke (op. cit.) presents a classification of schools of thought according to the central focus of the developmental activity: *person –centred, production-centred* and *principled problem solving*, each deriving from different philosophical traditions. Gourlay (2000) in attempting to clarify the nature of HRD states that "it focuses on theory and practice relating to training, development and learning within organisations, both for individuals and in the context of business strategy and organisational competence formation" (p. 99).

Garavan et al (2000) articulate three perspectives of HRD as being concerned with *capabilities, psychological contracts and learning organisation/organisational learning*. Each of these is associated with different root disciplines. They also imply different purposes in their prescriptions for HRD practice. There is also variability in relation to the purpose of HRD arising from the root disciplines seen to be underpinning HRD. These include; adult education, instructional design and performance technology, psychology, business and economics, sociology, cultural anthropology, organisation theory and communications, philosophy, axiology and human relations theories (Willis, quoted in Walton, 1999). There is also a running sub-terrainian debate within the field of HRD on the 'discipline' status of some these root disciplines. As well as variability of purpose, conceptual propositions derived from and built on these root disciplines also influence individual perspectives of HRD. For example, in the typology devised by Garavan et al (2000) the capabilities perspective is primarily associated with human capital theory and the application of economics in a resource based view of the firm. In a similar vein, Weinberger (1998) identifies systems theory as being distinct from learning theory in relation to their influence on HRD, leading to different formulations on the nature and purpose of HRD practice.

What is apparent from the above commentary is that there is no consensus over the conceptual-theoretical identity of HRD and related purpose. The purpose is contingent upon both philosophical and theoretical perspectives.

Boundaries and Parameters of HRD

This discussion demonstrates the multidisciplinary nature of HRD makes precise definition difficult. There is some evidence in the literature of ideological or descriptive-normative models for aspects of HRD. For example Walton (1999) has identified 'Strategic HRD' as a distinctive, almost freestanding, dimension of HRD. Similarly, the much-discussed idea of the 'Learning Organisation', (Senge, 1997) is a good example of the ways in which the normative prescriptive models are used as the basis for examining current practice (Dibella & Nevis, 1998). HRD is often presented as different to training and development with the focus being on learning and development for the organisation as well as the individual. There is often a futuristic focus, with prescribed contingent outcomes. Although there are often attempts to address both the practice and the conceptual aspects of HRD, the drive to express HRD in relation to models, frameworks and typologies, could result in a distancing between rhetoric and reality, similar to that found in HRM debates. As Hatcher argues, "Without a focus on the theoretical foundations of research and practice, HRD is destined to remain *atheoretical* in nature and poor practice will continue to undermine its credibility" (2000, p. 45; emphasis added).

Historically, the development of HRD can be traced from training and instructional design, to training and development, to employee development, to Human Resource Development (Jacobs, 2000). Traditionally, the field of HRD was defined by practice, not from a theoretical frame or set of research (Lyhnam,2000). More recently, the emergence of HRD related journals have presented an opportunity to define the field on basis of theory and practice (Jacobs, 2000). There is also a blurring of the boundaries in relation to the affiliation of researchers. Many early American researchers emanated from either an instructional design or an adult educational base. Recently Jacobs (2000) has reported that there are an increased number of manuscripts coming from business schools. This trend is a reversal of the European and UK situation. In the UK, HRD is very much the child of the explosion of HRM literature in the 1980s and 1990s (McGoldrick & Stewart, 1996).

In addition, the scope of HRD research can be seen to be expanding, with recent focus on areas that were not traditionally considered to be within the domain of HRD. These include organisational leadership, organisational values, workforce development issues at the societal level and labour economics (Donovan & Marsick, 2000). Multidisciplinary foundations and an expanding scope both have the effect of expanding the discursive resources and therefore language available to and used by HRD academics and practitioners. This last point is worth a little more elaboration, particularly with respect to Hatcher's remark, noted above, concerning the poverty of HRD practice being a function of the poverty of HRD theory. Rather than seeking to stake a claim to particular territory, HRD should be looking to enhance its capability to theorise on the basis of a solid research base. As was noted earlier, there is no single lens through which HRD is viewed, nor should there be. The debates which are now emerging from the Academy of HRD in the US and the University Forum for HRD in Europe and the UK, indicate a growing vitality for the development of good HRD theory. In taking these discussions and debates forward it is essential to pay close attention to issues of language and meaning.

Language of HRD: 'jargon-ridden' and 'meaning-hidden'?

There is a clear and continuing paradox concerning the language used in the discourse of HRD. Walton (1999) neatly sums it up as follows: "this constant concern with meaning and learning and their subtleties/shades/tones/cadences by those responsible for HRD can paradoxically be (yet another) reason why the HRD language appears so jargon-ridden and meaning-hidden." He continues: "Words are being asked to express the ambiguities faced by those trying to translate the subtleties of meaning into learning frameworks and language that hopefully capture all the nuances of actual experience and associated reflection, conceptualisation and experimentation" (p. 54). Social processes through which this has been attempted involve the construction of linguistic categories and an alteration in the received meaning of existing expressions. New terms in HRD include, lifelong learning and psychological contracts, whilst terms with scope for new meaning include competence and competencies, integration, teamwork, communication and commitment. Although all of these are useful to describe practices, conceptually there is a danger that these denote rhetorical, often managerial, aspirations and desired states of being. A lack of effective linguistic categories to clarify what is happening within HRD could result in a combination of illusion and allusion, as there are no definitive words to signify its identity.

Many of Walton's concerns resonate with Legge's (1995) sharp critique of rhetoric and reality of HRM. However this point is challenged by Sambrook (2000) who provides an analysis which draws no distinction between rhetoric and reality or words and action. In her view rhetoric is reality and words constitute action. From this approach, she is able to formulate a typology of 'ideal types' which is capable of accommodating discourse from both academic disciplines and professional practice. Such typologies, as well as those suggested by Garavan et al (op. cit.) and Lyhnam (2000) may well be useful in capturing and making sense of current variety of discourses within the HRD domain. However a proliferation of linguistic terms with variable meanings has obvious consequences for investigating empirical realities.

Empirical Elusiveness

Empirical elusiveness (Keenoy op. cit.) derives from an *inability to show* that HRD has a substantive presence in organisations. In some respects the issues surrounding the empirical absence or presence of HRD are analogous with those discussed earlier with respect to the conceptual parameters and boundaries. The American Society for Training and Development Research committee identified two major empirical gaps in relation to evidence as being between practitioners and researchers, and between practitioners and senior executives (Dilworth & Redding, 1999). Several European commentators, including Harrison (1998), have found little empirical evidence of 'Strategic HRD' in organisations. Others including Sambrook (1998) identify divergence in the stories told by HRD practitioners and non-HRD managers and employees. These studies suggest a need for closer collaboration between researchers and practitioners in order to build more accurate empirical evidence. Such a need has been expressed by both European (Hamlin et al, 1998) and American (Lynham, 2000) academics.

Locations of HRD

Locations of HRD can be understood in two senses. Firstly, as a description of a physical or sectoral location and secondly, and more importantly, as a feature of the process of organisational design. Reconfiguration of contemporary organisations, the emergence of the small business sector and continued growth in non-standard forms of employment are extending the perimeters of HRD activity. Internal creation of independent business units and growth of outsourcing, subcontracting and down sizing are all impacting on the structures and boundaries of organisations. Similarly the notion of 'employee' appears increasingly transient; employment security is less salient, with apparent continuing growth in temporary, part-time, subcontract and agency work. As a consequence HRD can no longer be seen to operate within the traditional boundaries of an organisation, but spread its influence to the development of those outside, on whom it depends (Walton 1996, 1999). In addition the SME sector is likely to provide a growing location for HRD practice, which may imply an expansion of the meaning of HRD (Hill & Stewart, 2000).

What is apparent from the discussion above is that there is no consensus over the conceptual-theoretical identity of HRD. It can be seen to constitute multiple, shifting, competing and contingent identities, dependent on philosophical perspectives and influenced by the range of methodological dimensions derived from the literature and from the continuing analysis of ongoing research work.

Critical Analysis

It is our argument that conceptually HRD is still in the intellectual shadows of HRM particularly with respect to HRD research in the UK (McGoldrick & Stewart, 1996). It is instructive however to see all the lessons HRD academics can learn from the theoretical development of HRM. Since its emergence in the late 1980's there have been two distinct strands to the literature advancing HRM. The first of these has been the solid development of texts and journal publications. The second has been a highly critical even polemical literature questioning the academic and root discipline claims of HRM. The strongly critical literature exemplified by Keenoy and Anthony's (1992) portrayal of HRM as "metaphor" and Legge's (1995) critique of the rhetoric of HRM.

One of the sharpest critics is Tom Keenoy (1999) who has written a deeply polemical review of the rise of HRM – which he dubs "HRMism". The article is both challenging and stimulating and poses questions as relevant to the emerging debates about HRD as to the discussion of HRM His argument is that HRM concepts, practices and theory are," a source of controversy, confusion and misapprehension." Indeed, he goes further and argues that "at the centre of this unfolding obfuscation lies an infuriating but curious paradox: despite mounting evidence of conceptual fragmentation, empirical incoherence and theoretical vacuity, HRMism has gone from strength to strength (Keenoy, 1999, p. 1). These charges of conceptual fragmentation, empirical, incoherence and theoretical vacuity may equally be applied to HRD. However, emerging from his polemical discourse there is a potentially useful metaphor for HRD.

A Holographic Metaphor?

The key argument that we wish to advance here, in contra-distinction to the way that Keenoy's argument is developed, is that utilising the metaphor of a hologram enables the reconciliation of intrinsic confusions and contradictions of conceptual, theoretical and empirical identities of HRD to be understood. "Holograms are projected images, which, as we shift our visual field in relation to them, appear to have contours, depth and in some cases in movement" (Keenoy, 1999, p. 9). The hologram is comprised of two distinct, discrete processes of technology and social, which are entwined. Both must occur simultaneously for the hologram to exist. Human social action and perception are an integral part of the process required to construct the image. Holograms can be described as 'techno-social' artefacts with a complex ontology (Keenoy, 1999, p. 10). Each is real, but each exists in a different domain. We only see what we are looking for. In order to see the other side, the shaded, deeper side of its identity, we need to change our perspective. The hologram provides a metaphor, which depicts 'social reality' as multi-dimensional, multi-causal, mutually dependent and constantly changing. The holographic reality is only accessible through a reflexive epistemology, which explicitly acknowledges the role of human beings in creating 'social reality'.

The following quotation from Keenoy (1999) is modified and substitutes HRD for HRM "The more [HRD] is undermined by conventional academic analysis, the stronger it seems to have become. Viewed from a holographic perspective this paradox is a consequence of employing a limiting two-dimensional epistemology. (….) Trying to fragment the phenomena and then mapping each fragment against a predetermined definition could be responsible for failure to 'see' [HRD] for what it is" (p. 10-11).

For Keenoy (1999) all of those implicated [in HRD] may all hold different "conceptual-projections" of HRD, which are likely to contradict their actual experience of HRD. From this HRD can be seen as a series of mutually expressive phenomena, which are transient (p. 17). Therefore it is impossible to conclude that HRD does not exist and impossible to conclude that it does exist. HRD exists in so far as it is the process of coming into being. Although we may not be used to conceptualising HRD as social phenomena in this way, such a conception is already present in the learning organisation discourse, which is depicted as a continuous and never ending process.

The holographic metaphor of HRD has some attraction for some of the reasons that Keenoy is sceptical. Whilst most of this paper has argued that HRD has no singular identity, if it is understood as a hologram it could be defined as singular. HRD's singularity would be defined through the properties of the hologram which could be described as "the fluid, multifaceted, integrated social artefacts", which are the 'continuing-outcome' of contextualised learning. HRD then serves as the *collective noun* for the various concepts, theories and methods devised to mange and control learning. This definition embodies our earlier argument concerning the complex interplay of competing ontological, epistemological and methodological assumptions, which assist in understanding the reality of HRD. The benefits of the holographic metaphor are the following.

- It acknowledges anomaly, uncertainty, ambiguity, multiple identities and transience. It is sensitive to the problem of lingustic expression.
- It permits the encompassment and softening of contradictions and paradoxes of different perspectives of HRD.
- It emphasises the analytical significance of the mutually involved processes of social and discursive construction. i.e. The role of social actors in reconstructing reality, whilst being components of reality.
- It provides interesting methodological questions concerning empirical research. This does not necessarily mean the abandonment of conventional modernist methodology, but emphasises the need for greater interpretative sensitivity. It requires analytical space to accommodate paradox, ambiguity instability as normal predictable outcomes within the praxis relationship.

The holographic metaphor seems to offer an alternative to the dualistic limitations of the modernism perspective and avoids the "limitless relativism" found in some varieties of social constructionism.

The use of metaphors in HRD is not a new phenomenon by any means. Short (2000) provides an excellent review of the use of metaphors in a recent paper. However, the attractions of the holographic metaphor are that it allows for a whole new perspective radically different to those currently associated with the debates on HRD. It provides a perspective, which is grounded in the belief that social reality has to be understood as a "fluid, unfolding process of social accomplishment" and, in addition, "draws attention to the experiential nature of observation and the observational nature of experience. 'Reality' is a fuzzy shimmer between these two movements" (Short, 2000, p. 18)

The implications for theorising and methodological development afforded by consideration of the holographic perspective may not yet amount to a new paradigm. However it does offer a counter to the initial charges that may be laid at the door of HRD theory of conceptual fragmentation and theoretical vacuity. The methodological implications for research design are immense and challenging. But that is a matter for another paper another time.

Conclusions

We offered a detailed analysis of the theoretical context of HRD research by focussing initially on the philosophical and conceptual dimensions. We argued that HRD has no dominant paradigm, at least in the UK. There is no single lens for viewing HRD and indeed that there are many voices articulating particular perspectives. In relation to our questions on the purpose of HRD we found that there is no consensus over the conceptual-theoretical identity of HRD and related purpose. The purpose is contingent upon both philosophical and theoretical perspectives. Arguments on the theoretical foundations of HRD also constitute the core of debates on its scope and boundaries.

We also discussed at length the issues of the boundaries and parameters of HRD where we argued that rather than seeking to stake a claim to particular territory, HRD should be looking to enhance its capability to theorise on the basis of a solid research base. We also addressed the language of HRD as central to advancing theory and research. Such is the significance of the language of HRD that we concluded that the distinction between rhetoric and reality in HRD is a false one. This was a particular theme in a number of chapters. Finally in the theoretical overview we examined the empirical elusiveness and locations of HRD and argued that both of these were intimately bound up with the changing forms and designs of organisations and the need therefore for research in HRD to address these changes.

The concluding section focussed on the holographic metaphor as a novel perspective on HRD. Our thinking in this regard is at an early stage but felt it provided the basis of a paradigm through which HRD can be expressed as a transient phenomenon more difficult to explain than understand. It is also seen as useful in developing new explanatory models of what HRD 'is' 'might be' or 'can be'. Although there is no agreement on what HRD means, it is nonetheless researched, practised and taught.

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Human Resource Development as a Factor in the Inevitable Move to Globalization

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Globalization is the source of considerable discussion, often emotional, throughout the world's businesses and among consumers and citizens. What does this trend mean for HRD? The implications are explored in this opinion piece, based on the author's experiences in thirty countries and reference to selected literature. Concluding that globalization is inevitable, the author makes recommendations for HRD's role, with emphasis on integrity in the process.

Keywords: Global HRD, Globalization, Theory

Globalization is one of today's business buzzwords. You can hardly read a company vision statement or read an article on international business that does not take for granted the continuing influence of globalization on business. Yet, while it affects communications, media, technology, trade, finance, economies, and politics, it is not clear just what globalization means or how individuals, organizations, and governments should respond to it.

As I write these lines, I have just returned from a meeting in Saudi Arabia with the executives of a company that has just made the decision that it must become a "global learning organization." It is a company that has been extremely successful in the Middle East, with literally no competition. But the situation is changing, and they are now facing competition from several other countries. In response, they have decided that they must enter into strategic partnerships (with Germany, Austria, Brazil, the United States, Italy, and others). It has decided that it must have an Internet system (it has had none in the past), and it must establish an MIS system that goes beyond the mainframe. It has some experience in working with managers from various Arab countries, but now it must figure out how to work with managers from several countries, as well as markets, consumers, and business people from those countries. It had felt safe in its isolation, but now it realizes that it must become global to survive.

In spite of continuing efforts of sub-systems to resist (note the recent protests at the World Trade Organization (WTO) meeting in Seattle), the ongoing process of globalization continues to shrink the world. Many want to blame corporations for this process, and there have been many publications and research studies exploring how corporations have tried to maintain control over this process (e.g., Marquardt, 1999). This paper argues, however, that neither corporations, world federations (WTO, GATT, World Bank, IMF, UN), or even governments can control the process of globalization. Factors that continue to feed this process, as well as those that impact the process negatively, corporately and individually, are explored, based primarily on the authors' experiences in 30 countries, but also referencing selected literature. Attempts are made to provide a more global definition of Human Resource Development (HRD) than has been used in the past. HRD is explored both as a facilitator of globalization, and as an outcome of the globalization process. Recommendations for future research conclude the paper.

Definitions

What is globalization? Lodge (1995) described it as a process that is both technological and human. Global information and communication foster the linkage of global agents--multinational corporations--while the globalization process is pulled by customer desires and pushed by talented corporate managers with global managing skills.

Friedman (2000) defined globalization as

> the inexorable integration of markets, nation-states and technologies to a degree never witnessed before--in a way that is enabling individuals, corporations and nation-states to reach around the world farther, faster, deeper and cheaper than ever before, and in a way that is enabling the world to reach into individuals, corporations and nation-states farther, faster, deeper, cheaper than ever before. (p. 9)

More often, this word simply means doing business abroad. Rhinesmith (1996), however, pointed out that doing business abroad is only the first step instead of the complete story. To be global, a company must also create "a corporate culture and value system that allow it to move its resources anywhere in the world to achieve the

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greatest competitive advantage. …Being global requires a mindset and skills that extend far beyond the current scope of most organizations" (p. 5). Rhinesmith emphasized the importance of people whose global mindset and behavioral change are largely what globalization is about. For many, developing the right people is what "thinking globally" really means (Donlon, Derwent, Cabral, & Grub, 1996).

McLean (1995) defined globalization as

> an evolutionary process that moves from exporting (with low risk and high control) through various stages of increasing risk with greater equity investment to the point at which the organization emerges as a totally interdependent and interrelated organization, in which the concept of "home country" disappears in favor of a truly global organization and perspective. (p. 309)

Friedman (2000) viewed globalization as "not simply a trend or a fad but is, rather, an international system." He described it as the system that has replaced the old Cold War system. The new system, according to Friedman, has "its own rules and logic" that "directly or indirectly influence the politics, environment, geopolitics, and economics of virtually every country in the world" (p. ix).

The Dilemma

The problem is that globalization is a two-edged sword. It can be seen as positive, usually by those who benefit from it. But it is also viewed as negative, often by those who are most affected by it negatively. The situation is well summarized in the web article, "Perspectives" (1998):

> Globalization is dynamic and real, causing numerous and often radical changes in all but the most remote places. Depending on your point of view, circumstances, and prospects, the process can be seen as hugely positive—or grossly negative. But the issue of globalization and our collective response to it promises to define who prospers and who will not well into the 21st century. Inasmuch as the pain caused by some aspects of globalization is undeniable, the real issue is whether the negative effects of its sweeping processes can be ameliorated—and the positive effects enhanced. Because, without doubt, the forward march of globalization itself is unstoppable. The negative effects of globalization can be softened only through new and higher levels of international cooperation and consultation, filtered through a new system of moral values that puts human welfare and social justice ahead of the predominantly materialistic paradigm currently in vogue. The urgency for all peoples everywhere to cooperate together…can never be overemphasized.

It is also true, however, that globalization, though now recognized as a system, is not new. As soon as the cave dwellers began to trade, a form of globalization had begun. When the tribes of indigenous people gathered to trade, select mates, decide policies, and hunt together, globalization was taking place. Marco Polo's travels to China; the voyages of the Vikings to Greenland and Newfoundland; the explorations of the Spanish, Portuguese, Italians, British, and so on, during the Middle Ages; were all forms of globalization. Friedman (2000) concluded that a similar type of globalization as is now occurring occurred during the period of the mid-1800s to the late 1920s, comparing "the volumes of trade and capital flows across borders, relative to GNPs, and the flow of labor across borders, relative to populations" (p. xvi). This era was also marked with several inventions that caused the world to shrink, according to Friedman, from large to medium: the invention of the steamship, the development of the telegraph, the completion of railroad lines across many countries, and the invention of the telephone. He claimed that recent technologies (microchips, satellites, fiber optics, the Internet), however, have caused the world to shrink from "medium to small" (p. xix). The rapidity of change that we are experiencing suggests that this shrinking of the world will continue unabated.

So, while the dilemma created by globalization is not new, its impact, nevertheless, is exacerbated because of its magnitude. While teaching my International HRD course in Saudi Arabia, with students from Saudi Arabia, Jordan, Sudan, the United Kingdom, and the United States, no issue caused more emotion than our discussion of globalization--both in the classroom and in our Internet conversations. And the backlash against globalization took place while class members made cell phone calls to their stockbrokers in London! It is this dilemma that I would now like to explore.

Factors Supporting Globalization

Many in business take for granted that globalization is good for it, for its owners, for its employees, and for the country in which it is operating. Companies decide to go global for many reasons: new markets, economies of scale, production efficiency, access to a world talent pool, technologies, and competitive resources, among others. As Donlon (1997) concluded, "The question is no longer whether one wishes to compete in the worldwide arena, but how one can do that successfully" (p. 62). So globalization is seen as a way to open new markets, to acquire flexibility that allows business to go where all of the inputs of business costs, including labor, can be minimized, thus increasing productivity. Productivity allows a business to stay in business, at a minimum, and to increase its market share, at the optimum.

Globalization is also a way of viewing the world as a freer, more open society, in which there is free movement of ideas, people, values, and systems across the globe, allowing everyone, ideally, to be able to choose both a personal and a corporate life style.

Friedman (2000) argued that

> globalization is the product of the democratization of finance, technology and information, but what is driving all three of these is the basic human desire for a better life--a life with more freedom to choose how to prosper, what to eat, what to wear, where to live, where to travel, how to work, what to read, what to write, and what to learn. (p. 348).

In fact, as people see what is in globalization for them, they try more and more to become a part of the system. Those who react against globalization tend to be those who are either already outside of the system (the poorest of the poor) or those who are afraid that they cannot stay in the system and who fear exclusion from the benefits of globalization. But those who want economic and political power, and who believe that they will gain it, either through hard work or luck, globalization will continue its onward march.

Factors Inhibiting Globalization

There is no shortage of arguments against globalization (e.g., Mander & Goldsmith, 1996). Almost all of the factors that inhibit globalization or create a backlash against it have to do with exploitation of one sort or another--workers, child labor, women, the environment, cultures, and even, some would argue, economic and government systems.

Exploitation of workers can occur in many ways. With corporations free to move their work freely across national boundaries, corporations can freely use the threat of a move to extort conditions from the workers. They can move work to wherever it is the cheapest, or at least where it has the best payoff for the investment. Thus, workers who have committed many years to a company may find themselves out of work overnight. Workers have to work under whatever conditions management insists, because that is how they are able to work. This leads, of course, to such abuses as sweatshops, employment of "illegal" immigrants, and even child labor.

Child labor becomes a concern in the global market place because the laws of many countries either do not prohibit the employment of children, or the laws that exist are not enforced. Corporations may then choose to move their production from the United States to Pakistan, knowing that the labor costs are low because children are involved in the production. This is not an easy issue, however. When I was working in Bangladesh, I was working with a textile mill when the U.S. Congress passed a bill putting very stringent limitations on the import of cheap garments. The mill was closed the next day. Many of the seamstresses in the mill were young girls 12-14. Yet, they provided the rice for their families for the month based on their monthly income. If the choice is between child labor and starvation, which is the worst evil? And their only option for employment without the textile mills was prostitution. Fortunately, Congress realized almost immediately the impact of its actions, and reinstated old quotas for the world's poorest countries.

Women, as a group, may also be exploited in the movement towards globalization. As I travel the world, I find that much of the world gets its information about the United States from television shows, such as "Baywatch" and "Dallas." They see how women are treated in such settings, and they assume that this is the way all U.S. Americans treat women. Sexual harassment and even sexual assault may well occur in the workplace, as a result, especially if the woman is from the U.S. Women in many countries have no recourse to such abuse. Either laws do not exist, or it is so difficult to prove guilt under the evidentiary rules, that the victim has very little chance of gaining redress. And they can't walk off the job because the job is too important to their economic wellbeing.

Many of the arguments against the North American Free Trade Agreement (NAFTA) and the more recent ones against the WTO have focused on concerns related to the environment. Companies in the U.S. will move their production to countries (like Mexico) that have far fewer environmental controls, so the argument goes. With fewer environmental controls, production costs will be less, thus increasing profits--but destroying the environment in the process and leaving workers "back home" unemployed. This argument extends to destruction of the rain forest, overmining of natural resources (both mineral and animal), and release of toxins and other pollutants into the air.

Cultural arguments are easy to make. English is becoming the language of business throughout the world. If you don't speak English (and quite well), the opportunities open to you are increasingly fewer. I had a conversation with a person from Kyrgyzstan a few days ago, and he talked about how slow the schools were there to give up the teaching of Russian and replacing it with quality instruction in English. This is a common conversation throughout the world. Where can you go today and not find McDonald's, Kentucky Fried Chicken, Burger King, Pizza Hut? What city doesn't have Chinese food? Even in staid England the types of restaurants have become extremely diverse, and no one thinks that this is exotic any longer. Television from Sydney with the 2000 Olympics gets beamed around the world. Fashion in one country quickly gets picked up in another country. Ask someone about traditional clothing, and, in many places, you will be looked at as if you were from another century. The reality is that television, especially CNN, the Internet (with its pornography and ready access to different political points of view), cell phones, and videos have all shrunk the world tremendously (Cairncross, 1997). We appear to be moving toward at least having people who are bicultural. Tolbert and McLean (1995) suggested that there was some evidence that we were moving toward a culture of business that transcended individual cultures. Friedman (2000) agreed: "Globalization has its own dominant culture, which is why it tends to be homogenizing to a certain degree" (p. 9). Vogel (1992) observed:

> …the increased globalization...is making business practices more uniform. The structure and organization of firms, manufacturing technologies, the social organization of production, customer relations, product development, and marketing--are all becoming increasingly similar. (p. 30)

In the process, some people will view unique cultures of countries as being exploited.

There is far from uniform acceptance of the International Monetary Fund's (IMF) impositions on Korea, Thailand, and Indonesia during the economic crisis of 1997. When we were in Korea, there were handpainted signs posted everywhere (in English!) telling the IMF what these particular Korean people thought of the IMF. Unemployment was experienced in all of these countries such as they have never felt before. And much of it was to protect the foreign banks that had foolishly made very high-risk loans to industries in these countries.

Finally, globalization has exploited government systems. Exploited may be a harsh word here, so perhaps saying that they have dramatically changed government systems is a better way of saying it. Think about the collapse of the Berlin Wall, the demise of communism, the futile efforts of the government of the People's Republic of China to keep information out of the hands of students, only to have them do an end-run with the use of the fax machine. Fundamentalist Islamic and Christian politicians want to get rid of the Internet because of what can be found there. This past December, I had an opportunity to meet with the President of Costa Rica. He talked about the impact of the WTO's sanction against Export Processing Zones (to disappear by 2003). Because many poorer countries have attracted companies with the use of "tax holidays" in EPZs, the WTO has held that EPZs are a form of subsidy, which is against WTO policy. As a result, Costa Rica, and many countries like it, are trying to figure out how they will be able to attract businesses to provide employment for the workers who will lose their jobs as the companies who moved into the EPZs now move elsewhere.

But there's no turning back the clock. When I was in Saudi Arabia, I attempted to have a threaded discussion, as I always do in the International HRD course. The firewalls that had been erected prevented us from doing this. But I found that, if I created a listserv and we communicated using the "Reply to All" button, we could accomplish exactly the same outcome. We saw young teenage boys accessing porno sites in "Internet cafes" there, and I heard one parent talk about how easy it was for their sons to get access to adult sites. They would swap disks at breaks between classes.

HRD's Role

We are not going to throw away the Internet, our cell phones, video technologies, satellite transmission, new markets, and new opportunities for development. That's why I have concluded, as indicated in the title of this paper, that the march to globalization is inevitable. In fact, as technology continues to develop at increasing speeds, I expect that we will find the pace of globalization to become even faster. If you accept this premise, then it seems that the question for HRD is not, "How can we stop globalization?" but, rather, "How can we support a globalization process that minimizes exploitation and truly works for the wellbeing of all of humanity?"

Before specifying the role of HRD in this process, a definition of HRD may be helpful. McLean and McLean (2000) explored definitions of HRD from around the world. Several differences were found within countries and between countries. The definitions collected varied according to three dimensions: scope of activities included in the definition, intended audience for development, and the intended benefactors of the outcomes of development. Factors influencing the definitions included the country's economy, government and legislative roles, and the influence of other countries through the impact of multinational companies, students studying HRD in other countries, and the predominance of the English literature coming from the United States, the United Kingdom, and, recently, India. The authors provided the following definition as an attempt to begin exploring a global definition:

> Human Resource Development is any process or activity that, either initially or over the long-term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for

personal or group/team gain, or for the benefit of an organisation, community, nation, or, ultimately, the whole of humanity.

This attempt does not, however, negate the ambiguity associated with trying to create a single definition of HRD, especially across multiple cultures (Mankin, in press; McLean, 2000).

Given this definition, then, HRD can support globalization while working to minimize exploitation by:

1. Working to improve educational systems within countries. Given that unskilled and semi-skilled work will continue not to be rewarded, perhaps even at a level of survival, it becomes essential that countries put their efforts into developing high quality education so that students can be prepared for the skilled jobs that will be in demand in the future. This requires that HRD professionals focus on both the training of teachers and administrators, as well as policy makers at local, state, and national levels, as well as using their organization development skills to ensure an environment in which professional educators can work effectively and students can learn effectively.
2. The rapidity of change in the workplace will not abate. This requires that organizations have effective change management programs in place. This is the purview of HRD professionals in Organization Development and might include team building, continuous quality improvement, conflict management, organizational structures, and the need for organizations to be learning organizations.
3. Training is a key to developing skill sets required as work processes change. Haphazard, unstructured OJT (on-the-job training) will no longer suffice. HRD professionals will increasingly address worker literacy. Developing multiple skills among the workforce will also be increasingly important for HRD.
4. Workers at all levels are interacting more with workers from a wide diversity of countries and cultures. To do this work effectively, they need to understand cross-cultural communications and effective ways to work within a multicultural workforce. HRD can provide such expertise.
5. Countries are increasingly focusing their national policies around the implications of globalization (such as is already done in Thailand and Singapore, and just this year, in Korea) (McLean & McLean, 2000). Experts in HRD can assist governments in developing policies that will be expansive and not create reactive barriers that will ultimately hurt the individual, the company, and the government.
6. A person who is well prepared in HRD should also be an expert in understanding systems and systems theory. Presenting the "big picture" and the influence of one activity one the system and its subsystems should help an organization and a country to maximize the benefits of globalization without paying a price that is prohibitive for it. Friedman (2000) reminded us that the world is no longer divided up into "narrow areas of expertise" as "the boundaries between domestic, international, political and technological affairs are all collapsing" (p. 24).
7. Given HRD's values, and OD's in particular, HRD professionals can serve as a conscience to an organization that does not understand the implications of exploitative actions. This does not insure that such activities will not take place, but it does help to know that someone has the ethical task.
8. A much better research base is needed for HRD professionals so they can better determine their role within a globalizing context. As with many fields, HRD has moved toward greater specialization, calling for "unleashing expertise" (Swanson, 1995), calling for greater specialization rather than enhancing the role of HRD in helping business people, government officials, policy makers, and others, become experts in generalizations. We need to know better how to do this.
9. Work with governments and NGOs (non-governments organizations) to create fail-safe systems, retraining programs, protective policies, and anything else that would protect those most vulnerable to exploitation (Wilson, 1987).

Specifically, at the level of business organizations, in an attempt to describe a process for becoming global, McLean, Tolbert, and Myers (2000) developed a model, Creating a Global Learning Organization (GLO), for how companies can move toward globalization through organization development (OD), the application of Action Research. The model outlined "several tenets within which the globally inclusive GLO change process is conducted." These tenets follow:

- Create change buy-in and enrollment at all levels.
- Provide effective leadership modeling and articulation of global vision. Such leaders must be: 1) active coaches and mentors; 2) visionaries; 3) strong and consistent communicators; 4) consistent role models; 5) delegators; and 6) service-oriented individuals.
- Conduct culture audit, qualitative and quantitative, for designing OD interventions.
- Create ownership of OD change interventions at all levels and functions.
- Provide extensive team-building and empowerment opportunities.

- Focus on personal and organizational work at the cognitive, affective, and behavioral levels.
- Design training and education processes around learner readiness.
- Build accountabilities for globalization into employee and executive performance.
- Link globalization efforts with all other corporate initiatives.
- Provide measurement for progress around OD change efforts.
- Provide challenge and support for all employees.

HRD is in a position to support these steps within businesses moving toward globalization.

In a CEO panel discussion held by *Chief Executive Magazine* and Deloitte Touche Tohmatsu International, three important strategies were identified to ensure effective global leadership (Donlon, 1997):

- Organizational consistency--adopt the same thinking and procedures on a worldwide basis in order to obtain scales of economy.
- Human resource capability--have the right people in the right place to compete globally
- Customer-oriented organizational flexibility--cut across traditional corporate hierarchies and establish self-managed teams to serve customers' global requirements.

Most participants agreed that the best long-term approach is to nurture an adaptive transnational culture so managers can understand the global strategic intent of the organization and its products. One way of doing this is to have more foreign executives in top management participating in business decision-making.

Companies face many challenges in achieving their goals. The traditional way of doing business must be challenged. Global managers need to reframe the 1) boundaries of space, time, scope, structure, geography, and function; 2) boundaries of functional, professional, and technical skills relevant for a past age; 3) boundaries of thinking and classification of rational versus intuitive, national versus foreign, we versus they; 4) boundaries of cultural assumptions, values and beliefs about the world, relations with others, and understanding of self (Rhinesmith, 1996). Other challenges to doing business across borders include developing the needed organization culture and managerial talents. "Corporate culture encompasses the values, norms of behaviors, systems, policies, and procedures through which an organization adapts to the complexity of the global arena" (Rhinesmith, 1996, p. 15). Companies need a common vision and value system to guide decentralized management, so that it can be fast and agile in learning and responding to new development around the world.

As to global managerial talents, there is growing consensus as to the value of employees with cross-cultural skills and teamwork among employees with diverse cultural backgrounds and demographic characteristics (Jain & Verma, 1996). Conn and Yip (1997) found that human resource practices are key in enhancing transfer abilities. A 20% increase in the effectiveness of such practices as global compensation systems, managers' foreign rotation programs, and worldwide training systems may cause a 3-5 % increase in effectiveness of critical capabilities transfer.

Human resources are often among the first to contact new foreign partners (Laabs, 1996). They assess the potential work force in a new country; decipher international labor laws; educate the organization on foreign markets, cultures, and ways of doing business; and create higher standards to select, train, and motivate international talents. Human capital is the source of sustainable competitive advantage to an organization, and its quality may be the only thing to distinguish one company from another in terms of globalization (Laabs, 1996). As a shaper of strategy (Torraco & Swanson, 1995) and as a change agent, HRM or HRD is responsible for nurturing a global corporate culture to increase organizational ability to learn through training and organization design.

The adoption of six new mindsets may help HR people meet demands from global organizations (Rhinesmith, 1995). The first mindset involves gathering information on the latest trends in learning, related technology, training methods, team building, and organization development on a global basis to improve the competitive edge. The second mindset requires the ability to identify, analyze, and manage paradoxes and confrontations due to contradictory needs in a complex global world. The third is viewing the organization as a process rather than as a structure to which value is added to drive the business. The fourth mindset requires the ability to work with people of different functional skills, experience levels, and cultural backgrounds. The fifth is the ability to manage continuous change and uncertainty effectively and efficiently. The last mindset is seeking lifelong learning and being able to manage organizational learning and improvement through exploration of new knowledge, new cultural perspectives, and feedback from a wide range of sources. These six mindsets remind HR professionals that there is much to learn before HR can help organizations succeed in globalization.

McLean and Mai (1999) concluded that

> Increasing interdependence among different parts of the world means that globalization will become a way of doing business for most companies. Taking a proactive approach toward globalization may provide the competitive advantage needed to be successful. Mapping out a perfect strategy to compete globally may be

> important to survive, but generating a global mindset for an organization as a whole is far more powerful. Globalization requires continuous organizational learning to discover resources, opportunities, and technologies; opening one's mind to differences around the world; foreseeing potential challenges; and thinking globally for the impact of strategic decisions. (p. 339)

An editorial in *Business Week* ("How to Keep...," 1992) called for a strong training role:

> What is to be done? Invest heavily in worker training and education, the one proven pathway to higher productivity and the production of high-value-added goods and services....Only a well-trained and educated work force can embrace the kinds of total quality management, just-in-time inventory control, computerized manufacturing, teamwork systems, and other techniques so crucial to producing the goods that generate First World-level profits and salaries. (p. 80)

The ultimate goal for a company may be transforming the organization from an ethnocentric model to a geocentric business model (Heenan & Perlmutter, 1979). To achieve that, people's values and expertise in globalization are the key. And human resource professionals must be the catalysts for the process by enhancing the organization's capacity to manage at least three levels of globalization--strategy/structure, corporate culture, and people (Rhinesmith, 1996).

Recommendations for Research

In many respects, HRD has not been particularly active in research related to international contexts. So it is not surprising that little has been researched or written by those traditionally seen as coming from inside the field of HRD. Some of the questions that HRD could address include:

1. How effectively does HRD address issues related to globalization as experienced by individual employees? Businesses? Communities? Government agencies?
2. What are the values of the field of HRD (and its professionals) and how do they support or hinder HRD professionals from helping to overcome the factors of exploitation that are potentially present in globalization?
3. What approaches are most effective for raising literacy, to provide skills to the unskilled, to develop learning skills, and to develop multiple skills?
4. What organization development interventions are most effective in helping business people and government officials to understand and apply systems thinking, to accept diversity, to manage conflict in a positive way, to work together as teams, to support each other in a coaching environment, etc.? In short, how do we empower individuals to benefit from globalization?
5. How can HRD help develop a comfort with ambiguity and willingness to adapt among people who are traditionally rigid?
6. How can technology illiteracy be addressed, especially among people who grew up in an environment where technology was not present and where people may even have a phobia about the technology?
7. Is a homogeneous culture emerging across traditional cultures? If so, among whom? Do those people view this as positive or negative? If negative, what is needed for traditional and emerging cultures to co-exist?
8. Within various cultures and constraints, what can be done to improve education and keep children in school longer and have better outcomes? Few in HRD have focused on school systems. Forming partnerships with those doing traditional educational research could well strengthen both fields.

There are many, many other questions that could be addressed profitably by HRD researchers. What is first needed is for HRD to affirm its commitment to working within a global context and working to create a humane approach to globalization that will open opportunities for those who have traditionally been exploited. With that mindset, we will see much more effort allocated to research related to globalization by HRD researchers.

Conclusion

I can think of no better way to end this paper than to share a story from Friedman (2000):

> High-tech entrepreneurs in Silicon Valley always like to compare their supercompetititve business to the story about the lion and the gazelle in the jungle. Every night the lion goes to sleep in the jungle knowing that in the morning, when the sun comes up, if it can't outrun the slowest gazelle, it will go hungry. Every night the gazelle goes to sleep in the jungle knowing that I the morning, when the sun comes up, if it can't outrun the fastest lion, it's going to be somebody's breakfast. But the one thing that the lion and the gazelle both know when they go to sleep is that in the morning, when the sun comes up, they had better start running. (p. 331)

And so it is with globalization.

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A Study of Gender Management Preferences as Related to Predicted Organizational Management Paradigms for the Twenty-First Century

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The purpose of this study was to provide insight into gender management preferences as related to the predicted organizational management paradigms for the Twenty-First Century. Access to diverse management preferences (if any), and the manner in which the combination of these diverse preferences is successful, can assist human resource professionals in guiding organizations to adapt management styles and expectations to best meet the predicted Twenty-First Century rules of business.

Keywords: Management Preferences; Management Paradigms; Organizational Development

The field of human resource development focuses on the human components that lead to business success. Rosener (1995) stated that in the future of business, companies will be distinguished from one another by their use of human resources. Rosener further stated that the proper use of human resources is no longer strictly a matter of social justice. It is a bottom line issue.

To successfully meet the predicted 21st Century management paradigms may require human resource professionals to capture the essence of the changing business environment and transition organizations to positively adapt to new management paradigms with minimal chaos. Understanding how men and women prefer to manage, and under what conditions they work well together, has direct implications on how organizations move through a change process. This study addresses the problem: what are the management differences between male and female managers relative to the predicted organizational management paradigms for the 21st Century? While some may make a leap in judgment that the predicted employee management models of the 21st Century workplace are based on traits most commonly seen in women, this study chooses to take a sample from one population (the banking industry) to discover if management preferences differ by gender, and what the results might mean relative to the predicted new rules of management for the 21st Century.

Theoretical Framework

The core elements of an organization's culture could positively be impacted by a greater understanding of gender preferences relative to management style. Beliefs drive behaviors, and behaviors drive results. When interested in results, it is both practical and appropriate to approach culture via its most obvious dimension: how people act (Fisher & Alford, 2000).

As HRD specialists, introducing a workforce to the aspects of gender management preferences that function well together could make a potentially stronger organizational culture: one that thrives on innovation, input, challenge, and quality. Stereotypic beliefs regarding gender management preferences may be diminished, and the strengths of gender management styles might possibly be brought to a higher level of appreciation.

With pressures being placed on organizational leaders of 21st Century organizations to empower employees, to employ a systems thinking perspective in problem-solving, to heighten customer service initiatives, to be more flexible in production and in managing people, and to provide increased training opportunities for employees, this study may shed light on how well the genders might adapt to managing their workforces, and if the characteristics of one or both genders are beneficial for further adaptation and study relevant to successful management practices for 21st Century organizations. To this point, this study provides insight into one component of human resource capability.

Access to diverse management preferences, and the manner in which the combination of these diverse preferences is successful, can assist human resource professionals in guiding organizational change initiatives relative to 21st Century workforce expectations. It may be beneficial to review the predicted organizational

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principles of the 21st Century workplace in order to set the stage for understanding why acceptance of new and diverse management preferences might be necessary and worthy of study.

Table 1 synthesizes Broersma's (1995) view of the old and new rules of business. For businesses to adapt to the 'new rules' may well require new forms of management. This insight directly impacts the essence of human resource development. It provides human resource professionals with the incredible challenge of introducing new ways to think strategically and to apply tools and techniques for capturing knowledge for the good of the whole organization. Understanding the management preferences of men and women can provide additional insights into the preferences from both groups that may be most useful for building stronger organizations in the 21st Century.

Table 1. The Predicted Business Paradigms Governing 21st Century Organizations

Issues	Old Rules	New Rules
Organizational Structures	Vertical	Horizontal
Empowered Workers	Perform discrete tasks	Cross-functional, self managed teams work together; share leadership
Systems Thinking	Emphasizes bureaucracy	Emphasizes systems
Ego-Systems Management	No protection of environment	Natural environment is a partner
Quality Focus	Review quality of finished product	Quality control is at all stages of production
Customer Service	Only customer service representatives know customers	Everyone knows who the key customers are
Flexibility	Produces standardized products/services	Quickly develop and deliver products and services, often customizing
Rewards	Pay on length of service	Pay based on knowledge
Organizational Learning	Technical training; basic knowledge only	Training is an investment

Klubnik (1995) cited the skills needed to compliment the predicted business management paradigm for the 21st Century business culture. She suggested that the characteristics consist of observation, listening, whimsy, sensitivity, system-driven skills, and peer-to-peer skills. She pointed out that if these characteristics are coupled with what highly productive employees say motivates them (respect for diversity, desire for empowerment, the sharing of goals, professional training, and open communication), along with the ever-present emergence of the new rules of business, we can begin to visualize the components of individuals who motivate others effectively.

According to Champy (1995) reengineering proved to be successful, yet companies still fell far short of their potential. Champy concluded that his revolutionary work omitted an ever-important variable: people. Reengineering 'work,' or operational processes, without reengineering 'people' (such as management) led to less than satisfactory results.

The greater the depth of understanding and appreciation for varying types of management preferences, the greater degree to which human resource professionals can positively impact productivity, retention, and morale of organizational workforces. This study attempts to understand management preferences of men and women, and desires to draw conclusions applicable to the predicted 21st Century management change initiatives. This is a study to ascertain the business management preferences of two groups of individuals: men and women.

This study addresses the problem: what are the differences between male and female managers relative to the issues facing business in the 21st Century? Because gender differences in management preferences could differ by industry, job, and geographic location, this study focused on one population: managers working in banks located in the state of Oklahoma.

Purpose and Research Question

The purpose of this study was to examine the extent to which males and females differed in their management preferences. The research question for the study was, 'What are the male and female management preferences of bank managers in Oklahoma relative to the anticipated business management principles of the future?' This study provided information on how the preferences differed, if at all, for this population.

Methodology

This was a descriptive study that assessed male and female management preferences and the possible impact of these preferences on management in the workplace of the 21st Century. The study focused on the preferred management preferences of men and women in leadership positions within banks that were members of the Oklahoma Bankers Association.

The independent variable in this research study was the gender of the managers surveyed. Dependent variables were conflict solving, initiative, inquiry, advocacy, decision-making, and critique. Demographic information gathered were gender, age, salary range, type of organization, size of organization, number of individuals supervised, educational background, race, number of years employed with their current organization, and title.

Population and Sample

The population for this study was women and men from banks that were members of the Oklahoma Bankers Association. The job titles for the population included senior vice president, executive vice president, vice president, assistant vice president, vice chair, and/or the chief operating officer of banks in Oklahoma.

To perform a t-test, a minimum response rate of 25-30 was necessary. Therefore, it was decided that a minimum of 125 surveys mailed to each gender was needed to ensure an adequate return rate. In order to draw a sample from this population, men in the study were individually assigned odd numbers and women were individually assigned even numbers. All odd numbers were drawn first (men), then even numbers were drawn (women). A total of 125 men and 125 women were randomly drawn. These individuals became the sample population for this study.

Data Analysis

Blake, Mouton, and Williams' (1981) Managerial Grid (updated by Blake & McCanse in 1991) was adapted and used to assess the management preferences of the sample population. The assessment was mailed to each participant with a cover letter explaining the research study.

The Managerial Grid was chosen for this study because of its relevance to an individual's concern with people and/or production (output) over six dimensions: Conflict solving (determines whether conflict might be destructive or constructive, depending on how individuals respond to the differing points of view), initiative (measures the degree to which individuals might be inclined to take action, shift directions, or stop an action), inquiry (the gaining of facts and data from coworkers), advocacy (measures the degree to which individuals may or may not be willing to take a stand on an issue), decision making (measures the degree to which production and/or people impact the way in which decisions are made), and critique (measures the individual's willingness to step aside and view alternative possibilities to improve performance). The instrument was also deemed to have face validity for this study by David Schrader, Ph.D., Associate Professor of Speech Communication at Oklahoma State University, and Jim Rhea, Ph.D., President of Greenwood Performance Systems. In addition, the Managerial Grid has been used to assess leadership styles in the academic world (Blake, Mouton, & Williams, 1981), the political world (Blake & Mouton, 1985), and the organizational world (Broadwell, 1995). Regarding the use and application of the Managerial Grid, Lester (1991) quoted a colleague as stating, "If all Blake had offered was a framework, that would have been the end of it. But…he devised the first, most complete and most sophisticated learnship package for those who wished to study organizational development" (p. 96). Lester also stated that with the flattening of organizational structures and with the reduced number of middle managers, the application for the Managerial Grid could be endless. The Managerial Grid has also been used as the model for validating other self-report measures of conflict management styles (Van de Vliert & Kabanoff, 1990).

The statistical procedures used to evaluate the responses were t-tests, chi-square and univariate analysis of variance. To assess any significant differences in male and female management preferences, a t-test was conducted.

A t-test was used because this type of statistical analysis shows the differences between two groups (i.e., male and female) on one dependent variable (i.e., management preference). The Managerial Grid employs seven management preferences. Therefore, seven t-tests were performed.

In addition, a chi-square analysis was used to assess differences in frequencies between men's and women's preferred management style. This statistical technique was used because it is appropriate for categorical data. Therefore, this analysis was performed on each of the seven management styles (i.e., 1,9; 9,9; etc.) by dimension (i.e., conflict solving, initiative, etc.).

Data Collection

The randomly selected 125 men and 125 women each received a cover letter explaining the survey, along with the Managerial Grid. The subtitles from the questionnaire were removed to avoid bias on the part of the participants. Also included was a Personal Data Sheet (demographic information).

Each questionnaire was coded to allow tracking of responses. Once the deadlines were reached and respondents were tracked, all codes were destroyed to assure confidentiality. The assessment was mailed to each participant with the request that it be completed and returned within five days. Each assessment included a stamped, self-addressed return envelope.

To examine non-respondent bias, six non-respondents (three men and three women) were contacted by phone and asked to complete the questionnaire. The completed surveys of non-respondents were compared to the original respondents' questionnaires to examine how closely the non-respondents' management preferences were to the respondents' preferences.

Limitations

Findings and conclusions in this study were limited by:

1. The population of managers.
2. The survey instrument (i.e., the wording of certain questions on the survey may make it conducive for answers to fall into the 9,9 preference, and it was given as a self-assessment).
3. The time in which the instrument was administered.
4. The methodology employed by this research study.
5. The fact that the survey focused solely on gender (other characteristics, such as race, class, ethnicity, salary, and age may play a role in management preference as well).

Results and Findings

Thirty-one men and 28 women responded to the survey and were used in the analysis. To examine individual male and female differences in management preferences, a chi-square analysis was performed on each of the seven management preferences of the Managerial Grid (i.e., 1,9; 9,9; etc.). Table 2 illustrates the frequency of most preferred managerial preferences for individual male and female respondents. The chi-square for these data was 9.57 (df = 8), $\underline{p} > .05$, indicating there was no gender difference for management preference. As can be seen in Table 2, no men were 1,9 (Country Club Management), and only one woman was of this preference. Eighteen men and 23 women were of the 9,9 (Team Management) preference, while four men and four women reported management preferences of 5,5 (Middle of the Road Management). Two men, but no women, reported a 1,1 (Impoverished Management) preference. Three men were of the 9+9 (Paternalistic Management) preference, and no women were of the 9+9 preference. Four men had tying scores for their dominant management preferences (5,5/9,9 and 1,9/9,9).

To assess gender differences in self-reported management preferences, rankings for each dimension were summed for each of the seven management preferences resulting in seven scores per participant. Male and female means were computed from these scores, and seven t-tests, one for each management preference by gender, were performed. No significant gender differences were found with regard to management preferences.

Table 2. Frequencies of Most Preferred Managerial Preferences for Individual Male and Female Groups

Management Preferences	Male	Female
1,9 (Country Club Management)	0	1
9,9 (Team Management)	18	23
5,5 (Middle of the Road Management)	4	4
1,1 (Impoverished Management)	2	0
9,1 (Authority-Compliance Management)	0	0
9+9 (Paternalistic Management)	3	0
Opportunistic Management	0	0
Ties for Dominant Preferences		
5,5/9,9	3	0
9,9/1,9	1	0

In addition, a chi square analysis indicated no gender differences in managerial preference across the dimensions. However, the data revealed differences in various cells for the dimensions studied as cited in Table 3.

Table 3. Gender Differences in Managerial Preference for Each Dimension

	Managerial Preference						
Dimension/Sex	1,9	9,9	5,5	1,1	9,1	9+9	Opportunism
Conflict Solving							
Males	3	**12**	**12**	1	2	2	0
Females	4	**12**	9	1	0	2	0
Initiative							
Males	**12**	4	3	1	3	7	1
Females	9	**8**	2	0	3	6	0
Inquiry							
Males	1	**14**	4	1	1	6	4
Females	0	**19**	4	0	1	2	2
Advocacy							
Males	1	**17**	3	1	0	**8**	1
Females	1	**20**	5	0	0	1	1
Decision Making							
Males	0	**24**	1	2	1	3	0
Females	0	**23**	2	0	1	2	0
Critique							
Males	3	4	**19**	1	1	1	2
Females	3	**9**	**15**	0	1	0	0

(Bold indicates responses deserving observation for each dimension)

Conclusions and Recommendations

If, as Rosener (1995) stated, businesses of the future will be distinguished from one another by their use of human resources, then the study of this population has proven interesting. It might be intriguing to discuss the possibilities as to why the results of this study revealed no significant gender differences with regard to management preference. Since both genders overwhelmingly reported an overall management preference for the 9,9 style, it might also be interesting to discuss that when a diversion from the 9,9 preference occurred, it occurred for *both* genders.

Moir and Jessel's (1991) observations that women desire leadership to encompass encouragement, support, trust, delegation, and independence are supported at best in the Managerial Grid's 9,9 (Team Management) preference. Indeed, it was Blake's (personal communication, October 30, 1996) contention that the 9,9 preference should be every manager's goal. Since 9,9 was the overall dominant management preference in this study for women, these leadership qualities are supported. However, the research results from this study also included men in this observation (since their dominant and most preferred management style was also the 9,9 preference).

Tingley (1993) and Burke and McKenn (1996) commented that both genders appeared lost as to how to treat one another in the workplace. This study exhibited findings contrary to these observations by Tingley and Burke and McKeen because both genders exhibited the same management preference of 9,9. In addition, when the deviations for individual management dimensions occurred, they occurred for both genders. On the contrary, these same deviations may exhibit evidence that indeed the two genders are at a loss on how to treat each other in certain circumstances. Within given dimensions, the deviations themselves may be caused on the part of both genders by feelings of confusion and inadequacy on how to deal with the opposite gender. This study found both genders melding any distinctions they each might have into the 9,9 management preference (Team Management), and defaulting to other management preferences where conflict solving, initiative, and critique were concerned.

Although the overall management preference for both genders was 9,9 (Team Management), there were deviations from the 9,9 preference when viewing the six managerial dimensions individually. A brief assessment of each dimension may help summarize this study's observations.

Conflict Solving

While the majority of the respondents reported the 9,9 preference for this dimension, many of the respondents diverted to the 5,5 (Middle of the Road Management) preference for this dimension. Because the genders varied in their preferences within this particular dimension, Tannen's (1990) observations that each gender exhibits different behaviors in conflictual situations may have credence. Other examinations of gender differences in dealing with conflict might also be supported (i.e., Gherardi, 1995; Tingley, 1993; Kipnis & Herron, 1994). In addition, conflict solving may depend on factors other than gender, such as age, hierarchical position, organizational culture, etc. (Chusmir and Mills, 1989). Gayle, Preiss and Allen's (1994) observations of two conflict management strategies, competition for men and compromise for women, could also shed light on the reasons for some deviation within this dimension.

Initiative

With regard to the dimension of initiative, neither gender overwhelmingly preferred the 9,9 preference, although eight women fell into this preference. The male respondents exhibited a preference within this dimension for the 1,9 (Country Club Management) and the 9+9 (Paternalistic Management) preferences, as did many women. Due to the extremely scattered perferences within this dimension, this finding might exhibit an internal disparity among individuals and/or their organizations. The organizational atmosphere may be amiable and consistent, but relatively status quo.

Inquiry and Critique

These dimensions center heavily on internal communication flow. The similarities between both genders on the dimension of inquiry may challenge some previous thinking on the perceptions that each gender has of the other and how these perceptions negatively dictate levels of inquiry (i.e., Tingley, 1993; Gherardi, 1995).

With regard to critique, *both* genders diverted from the 9,9 preference to the 5,5 preference. Both genders, then, may believe in the concept of positive reinforcement and may avoid negative feedback. Both genders may tend to approach negative feedback to subordinates in vague terms. Once again, since both genders exhibited a discomfort with direct and open constructive feedback, a variable other than gender may be responsible. This finding may have been expected for women (as seen in the observations of Tannen, 1990). However, the finding that men have been observed in previous studies to exhibit directness (i.e., Tingley, 1993; Gayle, Preiss, & Allen, 1994) is a contradiction to the finding in this study. However, it is also possible that the men in this population are using feedback as a control mechanism (by withholding information), thereby creating a sense of competition in the workplace.

Advocacy

Both genders reported a 9,9 preference for this dimension. Both genders therefore exhibited support for open and honest communication with subordinates regarding organizational commitment and direction. Both genders, then, were assertive and self-assured while also being open to opposing viewpoints. Based on several observations (i.e., Jamieson, 1995; Moir & Jessel, 1991), we might have expected this of women but not of men. Hite's (1993) notation that men applied the concept of competition versus sharing of information to interpersonal relationships may be challenged by this study. But because the reactions of both genders corresponded within this dimension of bank managers, Nieva and Gutek's (1981) observation that women leaders functioned similarly to male leaders in the same environment may have credence.

Decision Making

Both genders were strongly supportive of the 9,9 preference for this dimension. Perhaps the organizational structure of the banks in this study was more conducive to producing a team managed atmosphere. This assumption would support Dodd-McCue and Wright's (1996) findings that the crucial element to loyal and affiliated employees was the attitudinal commitment of the employees (more so than gender). Perhaps decision makers in these banks were organizing the internal operations and structures to heighten the attitudinal commitment of employees (which would include the supervisors in this study). This research also lent support to Helgeson's (1990) study of circular management, which she contends is a female preference. The 9,9 preference emphasizing team management and the affiliation of trust and respect, however, were shown to exist for *both* genders in this study, carrying Helgeson's notations into another dimension.

The research findings and the observations cited in the literature weave the common thread that men and women operate from different assumptions. It may be that banks, as surveyed in this study, are managing to bring the strengths of both genders together. Thus, men and women in these environments have possibly discovered organizational challenges to be greater than gender challenges.

Implications for Human Resource Development

The field of human resource development centers on the human elements that lead to successful business organizations. Studying whether there are differences between the genders in management preferences and understanding those differences could be essential in helping businesses adapt to better meet the predicted 21st Century business paradigm.

In addition, human resource professionals may need to reemphasize the sense of urgency to apply new ideas for management and leadership from a systems thinking perspective. According to Hamel and Prahalad (1994), senior management in today's U.S. businesses spend less than 3% of their energy on building business perspectives for the future. In most cases, Hamel and Prahalad noted that less than 1% of internal energy was spent on future-thinking initiatives, much less on new ways of utilizing human resources.

Boyett (1995) found that 90% of organizations wanted to reduce expenses; less than one-half were successful. He also recognized that more than one-half of these organizations wanted to improve cash flow; less than 25% succeeded. Many of these same companies also sought improvements in customer service, product quality, innovation, and implementation of new technologies; less than 10% succeeded. We perhaps have evidence, then, of that fact that organizations continue to incorporate change strategies, but the implementation of those strategies is difficult to weave into desired organizational results. Understanding component pieces (such as gender potential management preferences) of why these change efforts do not succeed may enlighten human resource specialists as they plan implementation strategies. Perhaps developing a greater understanding of gender management preferences, and the environments in which they compliment and work together synergistically, is a component piece toward positive organizational development for the 21st Century. Looking at gender preferences may allow workforces to begin working together for a common good, versus focusing on the negative aspects of differences and preferences. It may also allow for greater appreciation of diversity from the viewpoint that both genders bring positive influences to workforce management.

The power of research is that it helps us challenge our assumptions. This study sheds light not only on individual differences in management preferences, but also on how an entire population differed from basic gender assumptions with regard to management preferences. This study also reviewed deviations and similarities across six dimensions in an attempt to ascertain gender management preferences under given conditions. Attributing characteristics to one gender without having a clear view of the preferences for each gender on specific management dimensions could be futile. With this and other information gleaned from future studies, the summary of information provided might bring a greater appreciation and acceptance for a diversity of preferences relevant to organizational survival in the 21st Century.

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Considering OD Theories from the Theoretical Foundations of HRD and Performance Improvement

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The field of Organization Development (OD) draws from numerous areas to inform its theory base. This article proposes that core OD theory be addressed from the theoretical foundations of Human Resource Development (HRD) and the perspective of performance improvement. When combined, these views provide a powerful and useful means for identifying and selecting theories of OD for performance improvement.

Keywords: Selecting OD theory, Foundations of HRD, performance improvement

Currently, the knowledge and theory from which practitioners and scholars in Organization Development (OD) may draw is immense and multidisciplinary (Rothwell, Sullivan & McLean, 1995; Cummings & Worley, 2001; French & Bell, 1999). Because the theoretical landscape of OD is so vast, choosing OD theories can be an overwhelming task. In addition, there are many approaches and views regarding the nature of OD theory (Rothwell, Sullivan & McLean., 1995; Cummings & Worley, 2001; French & Bell, 1999).

Using the theoretical foundations of Human Resource Development (HRD) would provide Organization Development (OD) professionals with a useful means of examining and selecting sound theory for OD practice. Housed within HRD, (McLagan, 1989) OD, and therefore OD theory, can be considered and informed by the theoretical foundations of HRD. For the purposes of this paper the theoretical foundations of HRD will be taken to include economics, psychology, and systems theory (Holton, 1999, Passmore, 1999, Swanson, 1997, Torocco, 1997) These three theoretical foundations of HRD (Psychology, Economics and Systems theory) emphasize an integrated approach to HRD, with performance improvement as a necessary, but not necessarily sufficient outcome of HRD research and practice (Holton, 1999, Passmore, 1997; Swanson, 1995, 1997, 1998, 1999). This integrated theoretical perspective, when coupled with the emphasis on performance improvement, can provide a useful means for identifying and selecting OD theories.

An emphasis on performance improvement is critical to the credibility and development of the field of OD because, as Swanson (1999) notes, there is increasing pressure in organizations to meet the demand for high performance. This increasing pressure on performance outcomes requires that areas of practice such as HRD and OD develop principles and models based on performance in order to prevent trial-and-error practice (Swanson, 1999).

The alternative to having foundational theories is a discipline in which practitioners are free to include any theories they may choose. This can be problematic when practitioners attempt to replicate results. Micklethwait & Woolridge (1996) describe the current state of random reengineering as an example of how damaging atheoretical ventures can be. Swanson (1998) suggests that to focus on long-term results, develop the ability to replicate them, and acquire a deep understanding of a discipline, requires a logical and coherent set of foundational theories.

Problem Statement and Research Questions

Without foundational theory or theories and a means for selecting them, HRD practitioners are less likely to be able to replicate results, or develop a deep understanding of results achieved through OD interventions (Swanson, 1999). It is the purpose of this paper to provide a heuristic informed by the theoretical foundations of HRD and performance improvement that provides a mechanism for HRD and OD practitioners to select OD theories for improved practice and research. The following questions serve as the basis for the task of this paper:

1) From an HRD theoretical foundations and performance improvement perspective, what would constitute core OD theory?

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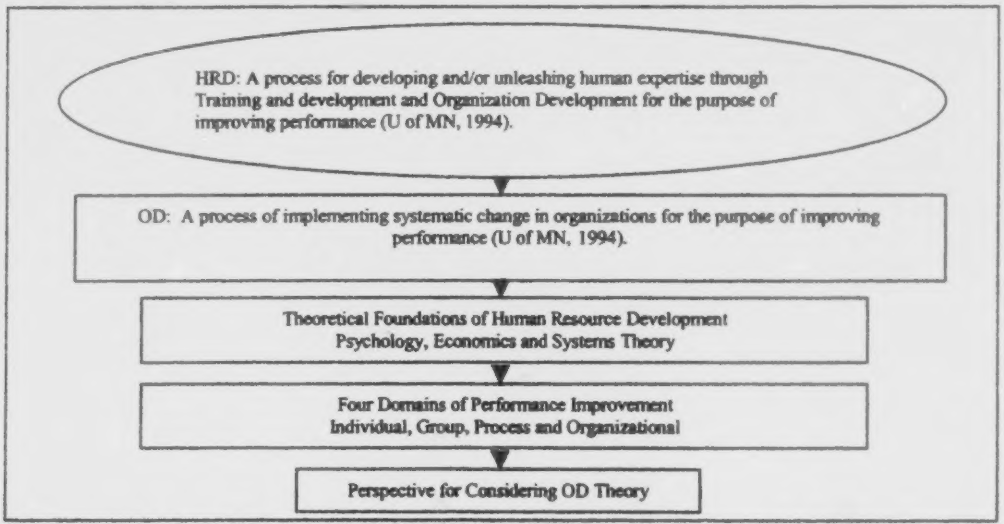
2) Given 1, what are some theoretically informed OD for performance improvement theories?

Methodology

The methodology used was a conceptual review, analysis, and synthesis of related scholarly literature. This approach is meant to be used to establish the current state of the body of knowledge about OD for performance improvement theory. In considering OD for performance improvement theory from the perspective of the theoretical foundations of HRD and performance improvement, little material was found that had previously considered this perspective.

The purpose of this paper is to provide a useful means for selecting and identifying OD theories for performance improvement. This approach considers OD theory from two perspectives: first, from that of HRD, and second, that of performance improvement. This approach is graphically represented in Figure 1.

Figure 1. Graphic Model of a Perspective for Considering OD Theory



HRD: A process for developing and/or unleashing human expertise through Training and development and Organization Development for the purpose of improving performance (U of MN, 1994).

OD: A process of implementing systematic change in organizations for the purpose of improving performance (U of MN, 1994).

Theoretical Foundations of Human Resource Development
Psychology, Economics and Systems Theory

Four Domains of Performance Improvement
Individual, Group, Process and Organizational

Perspective for Considering OD Theory

Viewing OD theory from the theoretical foundations of HRD, and also from a performance improvement perspective can be shown in a matrix as indicated in Table 1.

Table 1. The OD Theory Selection Matrix (shell)

	FOUNDATIONAL THEORIES		
PERFORMANCE DOMAINS	PSYCHOLOGICAL THEORY	SYSTEMS THEORY	ECONOMIC THEORY
INDIVIDUAL PERFORMANCE			
GROUP/SOCIAL PERFORMANCE			
PROCESS PERFORMANCE			
ORGANIZATIONAL PERFORMANCE			

In order for this heuristic to be useful, it is necessary to define the cells within the matrix. First, a definition of key terms, namely, the theoretical foundations of HRD (psychology, systems and economic) and the domains of performance (individual, group, process, and organization) are provided. And second, an integrated definition of each of the theoretical foundations of HRD at each domain of performance improvement is considered. For the purposes of this paper, the definitions presented below will be used to guide and inform the process of selecting core theories of OD for performance improvement.

Definition of Key Terms : Theoretical Foundations of HRD

Following are some key definitions pertaining to the matrix in Table 1, namely, HRD, OD, and each of the theoretical foundations of HRD. The theoretical foundations of HRD are defined from three perspectives, namely, a standard definition of each theoretical foundation, a definition of each theoretical foundation from the perspective of OD for performance improvement, and a purposive definition of each of the theoretical foundations.

For the purposes of this paper, HRD and OD are defined as follows:

- HRD is a process of developing and/or unleashing human expertise through training and development and organization development for the purpose of improving performance (U of MN, 1994).
- OD is a process of implementing systematic change in organizations for the purpose of improving performance (U of MN, 1994).

Defining Psychological Theory

- *Standard Definition*. "The scientific study of behavior and the mind" (Writen, 1998, p. 13).
- *Definition of Psychological Theory from the perspective of OD for Performance Improvement*. A description and explanation of behavior and mental processes of humans and their effect on humans and human system performance (Passmore, 1997).
- *Purposive Definition*. The purpose of psychology theory in the context of OD for performance improvement is to provide useful and relevant knowledge and methods for understanding and affecting human behavior and mental processes in human performance systems (Passmore, 1997; Marsick, 1999; Lynham, 2000a).

Defining Economic Theory

- *Standard definition*. "The science of analysing the process by which markets equilibrate supply and demand and generate prices." (Randall, 1987, p. 92).
- *Definition of Economic Theory from the perspective of OD for Performance Improvement*. A description and explanation of how the allocation of scarce resources among a variety of human wants affects individual, group, process and whole system performance (Randall, 1987; Torroco, 1998).
- *Purposive Definition*. The purpose of Economic theory in the context of OD for performance improvement is to provide useful and relevant knowledge and methods for understanding and managing the effects of the need to allocate scarce resources across individual, group, process and whole system performance (Randall, 1987; Torraco, 1998; Marsick, 1999; Lynham, 2000).

Defining Systems Theory

- *Standard Definition*. "A general science of wholeness" (Von Bertalanfy, 1969, p. 37), or, "Knowledge concerned with systems , wholes and organizations" (Ruona, 1998, p. 888).
- *Definition of Systems Theory from the perspective of OD for Performance Improvement*. A general description and explanation of the interrelationships among inputs, processes, outputs and feedback in systems, in wholes and organizations (Von Bertalanffy, 1969; Ruona, 1998).
- *Purposive Definition*. The purpose of systems theory in the context of OD for performance improvement is to provide useful and relevant knowledge and methods for understanding and affecting the interrelationships among inputs, processes, outputs and feedback in performance systems (Von Beralanffy, 1969; Ruona, 1998; Marsick, 1999; Lynham, 2000).

Definition of Key Terms: Domains of Performance Improvement

Because this paper emphasises a performance improvement perspective, the choice of related OD theories is further considered from four domains of performance, namely; the individual, group/social, process and organizational domains (Holton, 1999). The domain definitions are followed by a description of the purpose of each domain.

The Individual Domain of Performance. "Technologies and processes designed to optimise the performance of the individual within the context of the organization" (Lynham, 2000a, p. 21). The purpose of this domain of performance is to separate and identify technologies and processes critical to leveraging individual performance in a performance system.

The Group/Social Domain of Performance. "An internal subsystem for which performance goals have been set that are derived from and contribute to the mission of the overall system" (Holton, 1999, p. 31). The purpose of this domain of performance is to separate and identify internal subsystems with set goals that contribute to the overall mission in a performance system.

The Process Domain of Performance. "A series of steps designed to produce a product or service" (Rummler and Brache, 1995, p. 45). The purpose of this domain of performance is to separate and identify the processes and steps that cut across subsystems and produce products and/or services for identifying leverage areas for performance improvement in a performance whole.

The Organizational Domain of Performance. "The performance systems mission and the goals derived from it, that specify the expected outcomes of the performance system" (Holton, 1999, p. 29). The purpose of this domain of performance is to separate and identify the mission, goals and relationship with the external environment to identify leverage areas for performance improvement of the overall performance system.

Synthesis of Definitions: Theoretical Foundations and Performance Domains

Table 2 contains the integration of the definitions of the theoretical foundations of HRD and the domains of performance improvement. This ingegration is necessary because it provides the criteria for selecting OD theories.

Application of the Theory Selection Matrix

By combining the theoretical foundations of HRD with the performance domain perspective, a unique, 12-cell matrix of OD theory is provided (See matrix in Table 3). The matrix further sets up criteria for selecting OD theories in each cell. For example, psychological theory at the individual domain must satisfy both, the definition and purpose of the individual performance domain, and the definition and purpose of psychological theory informed from the perspective of HRD and performance improvement.

The OD theories selected below meet the definitional criteria indicated in Table 2. It is not suggested that these theories make up the core of theory in OD, rather that they are an example of the matrix in action. Following Table 3 is a brief dicussion of each theory and how in informs OD professionals about practice for improving performance.

Table 2. Integration of the Theoretical Foundations with the Performance Domains

PERFORMANCE DOMAINS	THEORETICAL FOUNDATIONS		
	PSYCHOLOGICAL THEORY	SYSTEMS THEORY	ECONOMIC THEORY
INDIVIDUAL PERFORMANCE	Psychological Theory at the Individual Domain Definition of psychological theory at the individual domain: A description and explanation of how the behaviors and mental processes of humans affect technologies and processes designed to optimise individual performance in the organizational context. Purpose of psychological theory at the individual domain: To provide useful and relevant knowledge and methods for understanding and affecting human behavior and mental processes and how they affect technologies and processes critical to leveraging individual performance in a performance system.	Systems Theory at the Individual Domain Definition of systems theory at the individual domain: A general description and explanation of how the interrelationships among inputs, processes, outputs and feedback, affect technologies and processes designed to optimise individual performance in the organizational context. Purpose of systems theory at the individual domain: To provide useful and relevant knowledge and methods for understanding and affecting the interrelationships among inputs, processes, outputs and feedback and how the interrelationships affect processes critical to leveraging individual performance in a performance system.	Economic Theory at the Individual Domain Definition of economic theory at the individual domain: A description and explanation of how the allocation of scarce resources among a variety of human wants affects technologies and processes designed to optimise individual performance in the organizational context. Purpose of economic theory at the individual domain: To provide useful and relevant knowledge and methods for understanding and managing how the allocation of scarce resources affects technologies and processes critical to leveraging individual performance in the organizational context.

GROUP/SOCIAL PERFORMANCE	Psychological Theory at the Group/Social Domain Definition of Psychological Theory at the Group/Social Domain: A description and explanation of how the behaviors and mental processes of humans affect internal subsystems for which performance goals have been set that derive from and contribute to the mission of the overall system. Purpose of Psychological Theory at the Group/Social Domain: To provide useful and relevant knowledge and methods about how human behaviors and mental processes affect internal subsystems with established goals that contribute to the overall mission in a performance system.	Systems Theory at the Group/Social Domain Definition of Systems Theory at the Group/Social Domain: A description and explanation of how the interrelationships among inputs, processes, outputs and feedback affect internal subsystems with set goals derived from and that contribute to the mission of the overall system. Purpose of Systems Theory at the Group/Social Domain: To provide useful and relevant knowledge and methods for understanding and affecting how the interrelationships among inputs, processes, outputs and feedback affect internal subsystems with set goals that contribute to the overall mission in a performance system.	Economic Theory at the Group/Social Domain Definition of Economic theory at the group/social domain: A description and explanation of how the allocation of scare resources among a variety of human wants affects internal subsystems with set goals that are derived from and contribute to the overall system. Purpose of economic theory at the group/social domain: To provide useful and relevant knowledge and methods for understanding and managing how the allocation of scarce resources affects internal subsystems with set performance goals that are derived from and contribute to the mission of the overall system.
PROCESS PERFORMANCE	Psychological Theory at the Process Domain Definition of psychological theory at the process domain: A description and explanation of how human behavior and mental processes affect any series of steps designed to produce a product or service. Purpose of psychological theory at the process domain: To provide useful and relevant knowledge and methods for understanding and managing how human behavior and mental processes affect steps or processes that cut across subsystems and produce products or services in a performance whole.	Systems Theory at the Process Domain Definition of systems theory at the process domain: A description and explanation of the how the interrelationships among inputs, processes, outputs and feedback affects any series of steps designed to produce a product or service. Purpose of systems theory at the process domain: To provide useful and relevant knowledge and methods for understanding and affecting how the interrelationships among inputs, processes, outputs and feedback affect the processes and steps that cut across subsystems to produce a product or service in a performance whole.	Economic Theory at the Process Domain of Performance Definition: A description and explanantion of how the allocation of scarce resrources among a variety of human wants affects any series of steps designed to produce a product or service Purpose: To provide useful and relevant knowledge and methods for understanding and managing how the allocation of scarce resources affects processes and steps that cut across subsystems and produce products or services in a performance whole.
ORGANIZATIONAL PERFORMANCE	Psychological Theory at the Organization Domain Definition of psychological theory at the organization domain: A description and explanation of how human behavior and mental processes affect the performance system's mission and goals that specify expected outcomes. Purpose of psychological theory at the organization domain: To provide useful and relevant knowledge and methods for understanding and affecting how human behavior and mental processes affect the organization's mission, goals and relationship with the external environment.	Systems Theory at the Organization Domain Definition of systems theory at the organization domain: A description and explanation of how the interrelationships among inputs, processes, outputs and feedback affect the performance system's mission, goals that specify expected outcomes. Purpose of systems theory at the organization domain: To provide useful and relevant knowledge and methods for understanding and affecting how the interrelationships among inputs, processes, outputs and feedback affect the organization's mission, goals and relationship with the external environment.	Economic Theory at the Organization Domain Definition of economic theory at the organization domain: A description and explanation of how the allocation of scarce resources among a variety of human wants affects the performance system's mission and goals that specify expected outcomes. Purpose of economic theory at the organization domain: To provide useful and relevant knowledge and methods for understanding and managing how the allocation of scarce resources among a variety of human wants affects the organization's mission, goals and relationship with the external environment.

T-C-P Theory

Tichy's T-C-P Theory offers a 9-cell matrix for ensuring alignment among organizational components. The focus of T-C-P theory is one of evaluating and integrating the organization from three internal perspectives: technical, cultural, and political. The three internal perspectives are aligned and then evaluated against the economic, political, and cultural forces in the external environment. Tichy's T-C-P theory informs HRD professionals about the nature of alignment in internal processes and how given "steps" in a process are linked not only to each other, but also to the internal economic, political, and cultural forces.

Bridges Transition Theory

Bridges (1980) defines three zones of transition, namely, ending, neutral and new beginning. According to Bridges, each phase must be completed before and individual can successfully begin the next. Bridges theory informs HRD professionals about how individuals cope with change. Understanding how individuals cope with change may explain why, after change interventions, individual performance often decreases before it improves (Cummings & Worley, 2001).

Table 3: The OD Theory Selection Matrix

PERFORMANCE DOMAINS	FOUNDATIONAL THEORIES		
	Psychological Theory	Systems Theory	Economic Theory
Individual Performance	Bridges Transition Theory (1994)	General System Theory (Von Bertalanffy, 1969)	Swanson's P-L-S Theory (1996)
Group/Social Performance	Johari Theory of Communication (Luft, 1961)	Group Process Consultation Theory (Cummings & Worley, 2001)	Team Building (French & Bell, 1999)
Process Performance	Intergroup Realtions Theory (French & Bell, 1999)	Tichy's T-C-P Theory of Alignment (Tichy, 1983)	Process Improvement (Rummler & Brache, 1995)
Organizational Performance	Performance Management Theory (Cumings & Worley, 2001)	General System Theory (Von Bertalanffy, 1969)	Human Capital Theory (Becker, 1993)

Human Capital Theory

Becker (1993) suggests that employee education, training and health care, among other expenditures, be considered investments. De Geus (1997) states that "the ability to learn faster than your competitors may be the only competitive advantage" (p. 21). Human Capital Theory informs OD professionals that economic organizational performance involves much more than sound processes and goals. Organizational performance requires that organization members are seen as a major source of potential competitive advantage and recognized as the foundation of the business itself (De Geus, 1995).

Swanson's P-L-S Theory

Swanson's P-L-S Evaluation system focuses on three domains of evaluation; performance, learning and satisfaction and focuses on the impact of the individual on the organization (1996). Swanson's P-L-S system measures changes in individual performance first in terms of economic impact, followed by changes in knowledge and expertise, and finally satisfaction measurements are considered. The P-L-S system informs OD practitioners that there are many ways to measure individual improvement. The focus on the economic performance contributions of the individual is presented as a necessary, but not necessarily sufficient outcome.

General System Theory

Because General System Theory is defined as a "a general science of wholeness" (Von Bertalanffy, 1969, p. 37), it can be used to explain the organizational level of inputs, processes, outputs and feedback with the external environment. Often thought of as a unifying theory (Jacobs, 1989), general system theory informs OD professionals about the nature of the relationship between the organization and external political, cultural, economic and climate changes. Insights gained from the perspective on general system theory can be extended to all four domains of performance improvement (Rummler & Brache, 1995).

Performance Management Theory

Performance management is an integrated process of defining, assessing, and reinforcing employee work behaviors and outcomes as they pertain to the organization (Cummings & Worley, 2001). "Organizations with a well-developed performance management process tend to outperform organizations without this element of organization design" (Cummings & Worley, 2001, p. 371). Divided into three pieces, goal setting, performance appraisal, and reward systems, performance management specifies, assesses, and provides reinforcement for the desired outcomes.

Performance management theory informs OD practitioners about the impact of individual work behaviors and practices on the strategic objectives of the organization.

Johari Theory of Communication

Luft (1961) developed a 4-cell matrix to explain communication with hidden levels within groups. Cell one is comprised of issues that are perceived by both the individual and others, cell two describes issues that the individual is aware of, but conceals from others, cell three contains personal issues that are unknown to the individual, but are communicated clearly to the others, and finally, cell four, which consists of issues that are hidden from both the individual and others. An understanding of the Johari theory can inform OD professionals about the dynamics of group communication as it is influenced by the communication abilities and methods of the individual.

Group Process Consultation Theory

Schein defines group process consultation as "a set of activities on the part of the consultant that helps the client to perceive, understand, and act upon the process events that occur in the client's environment" (1987, p. 34). Group process consultation deals primarily with five processes; communications, group member roles, group problem-solving and decision-making, the development and growth of group norms, and the use of leadership (Cummings and Worley, 2001). Group process consultation is a general model for helping group relations and is systemic in nature as it depicts the group as a pivotal unit within the organizational whole (Schrage, 1990).

Team Building

Team building refers to a range of activities that help groups to improve how they accomplish tasks and make decisions. Team building helps problem-solving groups maximize the use of resources and contributions that eventually impact the economic performance of the organization (Cummings & Worley, 2001). According to French & Bell, team building can focus on task accomplishment, relationships, processes, role analysis, and role negotiation (1999). Team building activities attempt to improve and increase the effectiveness of teams within the organization, which can translate directly to the economic benefit of the whole (Schrage, 1990).

Process Improvement and Redesign

"Process is the least understood and least managed domain of performance" (Rummler & Brache, 1995, p. 21). Process improvement and redesign involves four phases, namely, performance improvement planning, project definition, process analysis and design, and implementation. Failure to improve and manage process performance is failure to improve organizational economic performance (Rummler & Brache, 1995). An understanding of process improvement and redesign allows OD professionals to affect the way work is accomplished in an organization.

Intergroup Relations Theory

There are several strategies for reducing intergroup conflict. Intergroup team building, third party peace-making interventions, organization mirror interventions, and partnering are all common methods for alleviating intergroup tension (French & Bell, 1999). Understanding the dynamics of intergroup conflict enables OD professionals to deal effectively with group system conflict. As organizations shift toward heavier use of the group as the primary unit for conducting problem solving, the process of intergroup management will become critical (Rummler & Brache, 1995).

Significance of the Study

There are a number of potential benefits in considering the identification and selection of OD theories from the theoretical foundations of HRD and performance improvement. First, this integrated HRD/PI perspective provides a means for selecting OD theories for improved practice that are consistent with the theoretical foundations of HRD. Second, the theoretical foundations of HRD provide a theoretical anchor for selecting core theories. This integrated HRD/PI view can be used to provide HRD practitioners and scholars with a theoretically informed means for identifying and selecting theories of OD for performance improvement. Finally, the theoretical alignment of OD theory to that of the theoretical foundations of HRD can assist in the development and credibility of both HRD research and practice.

Contributions to New Knowledge in HRD

This paper provides a view of theory in OD that is consistent with the theoretical foundations of HRD. The view of OD from the theoretical foundations of HRD *and* performance improvement has produced a frame for selecting OD theories that have a logical theoretical base.

In the spirit of value-added OD, practitioners need to have a theoretically informed means for selecting OD theories for improved practice. The Theory Selection Matrix presented in this paper provides such an informed framework.

Conclusions and Recommendations for Further Consideration

Currently, theory in OD stretches across multiple disciplines. The variety of theories for OD professionals to choose from is overwhelming and without logical theoretical foundations, OD practitioners will not be able to replicate results or develop a deeper understanding of the discipline (Swanson, 1999). This paper has highlighted OD for performance improvement theories from the theoretical foundations of HRD and performance improvement thereby providing a view of OD that is consistent with that of HRD. A useful next step in the application of the Theory Selection Matrix would be to determine what makes for good OD for performance theory.

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Organization Development: An Examination of Definitions and Dependent Variables

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Organization Development (OD) has been engaging in an ongoing search for further purpose and definition. Several authors have forwarded definitions of OD and the associated outcomes or dependent variables. Although OD definitions have been discussed in previous research, few authors have attempted to analyze the definitions in terms of outcomes. This article explores twenty-seven definitions of OD published from 1969 to the present. Associated dependent variables are examined.

Keywords: Organization Development, Performance Improvement, Action Research

Organization development (OD) has been engaging in a search for purpose and definition. Many OD scholars and practitioners have developed definitions of OD and countless more have used common definitions to explain theories, rationale and approaches. According to Burke (1994), the term organization development was first coined in 1969. Several definitions can be found from that year (Beckhard, 1969; Bennis, 1969; Blake & Mouton, 1969; Golembiewski, 1969; Lippit, 1969). Each word organization and development have been analyzed and reflected upon by OD scholars (Golembiewski, 1992a, 1992b). There have been many statements in the OD literature to suggest that the field is uncertain of its direction and identity (Church, Waclawski & Seigel, 1996), including the assertion that "nobody agrees exactly what doing OD means" (Church et al. 1996).

The on-going exploration of the term organization development is important to any scholar, practitioner or participant interested in the field (Cummings & Worley, 1997). Historically, OD authors have provided commentary on the everyday workplace environment as well as the theoretical and practitioner based concepts that support the field. This article begins with and introduction of twenty-seven OD definitions and their related dependent variables and summarizes the outcomes OD aims to achieve.

Purpose of the Paper

The purpose of this article is to investigate definitions of organization development. The focus of the article is on two questions: 1) What are the ways in which organization development is defined? 2) What are the characteristics and relationships between dependent variables or outcomes that are identified in organization development definitions? Definitions found in published works from 1969 to the present will be provided and discussed. The dependent variables for each definition will be identified and explored.

History and Challenges in Defining OD

In reflecting on the history of OD, Hornstein (1997) indicated that there is some confusion regarding the actual genesis of OD. Most authors have associated the publications in Addison-Wesley's OD series featuring the work of Beckard (1969), Bennis (1969) and Schein (1969) as the starting point for the literature specifically directed at the theory and practice of OD (French & Bell, 1999; Cummings & Worley, 1997). There is, however, much discussion regarding OD's beginnings.

> It would be audacious to insist that this publication (Addison-Wesley's OD series, 1969) marks the field's official beginning. Perhaps its inception actually occurred at the OD Network's first meeting. Or, maybe OD really got started during the summer of 1967… when the National Training Laboratories (NTL) first offered the Program for Specialists in Organization Development (PSOD). (Hornstein, 1997, p. 43)

There were also developments that proceeded the writings and practice of the 1960s including the work of: McGregor, Shepard, Blake and Mouton, London's work at Tavistock, and Trist and Bamforth's work in weaving sheds and coal mines (French & Bell, 1999). The "Classical School of Thought" emerged in the late Nineteenth Century (Rothwell, Sullivan, & McLean, 1995). These approaches were developed out of Social Darwinism and

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the work of Frederick Taylor, Frank and Lillian Gilbreth and Henry L. Gantt (Rothwell et al. 1995). Other roots of OD include economics and human capital theory, participatory management theory, psychology, psychotherapy, social psychology and survey methods.

The most frequently read texts on OD examine the recorded past and the definitions that have been forwarded throughout the years. The most commonly cited first definitions of OD appear to be from the aforementioned Addison-Wesley OD series. These definitions assist us in understanding our past and the identity of OD and its practitioners. Further examination may also help OD practitioners and scholars to chart our futures.

Some OD practitioners and scholars have not framed their practices or research using OD language. Discussions regarding consultation, the practitioner and organizational learning have appeared in the Addison-Wesley OD Series and in other OD related publications without specific mention of the term organization development. Perhaps Argyris and Schön (1996) represent one of the best current examples. Discussions regarding the "learning organization" are widespread and certainly have been influenced, if not entirely instigated by, the work of Argyris and Schön. Despite both authors having been documented as major participants in influencing the field of OD (French & Bell, 1999) and that their work was published as a continuation of the founding Addison-Wesley OD Series, neither the first or second versions of Organizational Learning refers to OD nor does the word organization development appear in the index of either of their groundbreaking books.

Organization development courses and commonly utilized textbooks (Cummings & Worley, 1993) use the term organizational learning, but a member of an organization investing in the "organizational learning" framework may be unlikely to make a connection to the term organization development. Although the disconnectedness in terms may have little impact on practice, it undoubtedly has an impact on the identity of the field of OD. Persons unaware of the connections between OD and organizational learning are unable to access the knowledge developed through decades of practice, research and theory building. This overlap of efforts using different terms may contribute to the blurring of focus on arguably the most important factor in further establishing OD, which centers on identification of outcomes or dependent variables.

Taking a closer look at OD definitions reveals that the aims of OD practitioners vary (Cummings & Worley, 1997). The variation is to be expected based on the OD practitioner's biases, education, exposure to theory and experiences. Although some would take the position that an exploration of OD definitions and their dependent variables is futile based on the relative youth of the field or the individualized perspective of each practitioner, it seems plausible that there would exist themes in the experiences, practices, processes, definitions and outcomes of OD practitioners to date. By examining previously forwarded definitions of OD, scholars and practitioners may be better able to gauge the relative awareness, similarities and differences in the field.

Some may argue that the signature of OD practitioners, as compared to other internal and external organizational consultants, is the emphasis on values. OD is a field that is based on values and ethics (Rothwell et al. 1995). It is clear that those who have developed their approaches to OD from a values perspective are also focused on general or specific outcomes associated with their contributions to clients, organizations and society. Therefore, outcomes are important to the focus of OD and its practitioners. A significant challenge to exploring the dependent variables that define OD and influence the work of OD practitioners is the naturalistic environment in which much of OD work takes place. It is clear that an examination of the dependent variables in OD cannot be so rigid as to attempt to explore an artificially controlled practice.

Examining Definitions of OD

Authors have commented on the difficulty of assembling OD literature (Pate 1976; Varney, 1990). For the purposes of this study, a review was conducted using several periodical search engines at a major university in the United States that identified journals and books with the title or specific reference to the term organization development. In an effort to extend the possibility for a broad review of the literature, the assembly of the following definitions involved consultation with six leaders in organization development. Each of the six leaders consulted has published and presented widely, led academic and professional OD organizations, and are active OD consultants in the United States and internationally. OD leaders were asked to review a list of definitions that highlighted dependent variables. Each was asked to comment on the thoroughness of the list and to recommend additions or changes. A limitation to the study is that the identified definitions were found almost exclusively in publications from the United States. The following twenty-seven definitions are a product of this review of the academic literature and expert review. Definitions developed by OD organizations or associations have not been included.

Table 1. Organization Development Definitions

Author	Date	Definitions *(dependent elements bolded)**	**Dependent Variables***
Beckhard	1969	Organization development is an effort (1) planned, (2) organization-wide, and (3) managed from the top, to (4) **increase organizational effectiveness and health** through (5) planned interventions in the organization's "processes," using behavior-science knowledge.	Increase organization effectiveness and health
Bennis	1969	Organization development (OD) is a response to change, a complex educational strategy **intended to change the beliefs, attitudes, values, and structure of organizations so that they can better adapt to new technologies, markets, and challenges and the dizzying rate of change** itself.	Adapt to new technologies, markets, challenges and change
Blake & Mouton	1969	Organization development emphasizes the "O" in every sense of the word. It means **development of the entire organization** or self-sustaining parts of an organization from top to bottom and throughout. True OD is theory based, team-focused and undertaken by means of self-help approaches which place a maximum reliance upon internal skills and leadership for **development activities**. It is top lead, line managed and staff supported. **Development activities** focus on the "system," those traditions, precedents, and past practices which have become the culture of the organization. Therefore, **development must include individual, team and other organization units** rather than concentrating on any one to the exclusion of others. OD is thus this comprehensive approach which integrates the management sciences, business logic, and behavioral systems of an organization into an organic, interdependent whole.	Development and development activities
French	1969	Organization development refers to **a long-range effort to improve an organization's problem-solving capabilities and its ability to cope with changes in its external environment** with the help of external or internal behavioral-scientists consultants, or change agents, as they are sometimes called.	Improve problem solving capabilities and ability to cope with environmental change
Golembiewski	1969	Organizational development implies a normative, re-education strategy intended to affect systems of beliefs, values and attitudes within the organization so that it can **adapt better to the accelerated rate of change in technology, in our industrial environment and society in general.** It also includes formal organizational restructuring which is frequently initiated, facilitated and reinforced by the normative and behavioral changes.	Adapt better to change in technology, the industrial environment and society
Lippit	1969	Organization development is the **strengthening of those human processes in organizations which improve the functioning of the organic system so as to achieve its objectives. Organization renewal** is the process of initiating, creating, and confronting needed changes so as to make it possible for organizations to **become or remain viable, to adapt to new conditions, to solve problems, to learn from experiences, and to move toward greater organizational maturity**.	Improve functioning, organizational renewal, viability, adaptation, learning, and maturity
Schmuck & Miles	1971	Organizational Development can be defined as **a planned and sustained effort to apply behavior science for system improvement**, using reflexive, self-analytic methods.	System improvement

* Collection of definitions, determination of dependent elements and dependent variables verified by six OD experts

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Table 1. Organization Development Definitions (continued)

Burke & Hornstein	1972	Organization development is a process of planned change--change of an organization's culture **from one which avoids an examination of social process (especially decision making, planning, and communication) to one which institutionalizes and legitimizes this examination.**	Institutionalization and legitimizing of the examination of social process
Hall	1977	Organizational development refers to **a long-range effort to improve an organization's problem-solving capabilities and its ability to cope with changes in its external environment** with the help of external or internal behavior-scientist consultants or change agents.	Improve problem-solving capabilities and ability to cope with changes in its external environment
French & Bell	1978	Organization development is **a long-range effort to improve an organization's problem-solving and renewal processes**, particularly through a more effective and collaborative management of organization culture-- with special emphasis on the culture of formal work teams--with the assistance of a change agent, or catalyst, and the use of the theory and technology of applied behavioral science, including action research.	Improve problem-solving and renewal processes
Beer	1980	Organization development **is a system-wide process** of data collection, diagnosis, action, planning, intervention, and evaluation **aimed at (1) enhancing congruence between organizational structure, process, strategy, people, and culture; (2) developing new and creative organizational solutions; and (3) developing the organization's renewing capacity.** It occurs through collaboration of organizational members working with a change agent using behavioral science theory, research, and technology.	Enhancing congruence; Developing creative organizational solutions and developing renewing capacity
Beer	1980	Organizational development is **a process for diagnosing organizational problems** by looking for incongruencies between environment, structures, processes and people.	Problem diagnosis
Burke	1982	Organization development is a **planned process of change in an organization's culture** through the utilization of behavioral science technology, research, and theory.	Cultural change
Davis	1983	Organization development consists of a series of theory based workshops, techniques, programs, systematic approaches and individual consulting interventions **designed to assist people in organizations in their day-to-day organizational life and the complex processes this involves.** All of this is backed up with beliefs, biases, and values held by the organization development practitioner.	Assist people in organizations
Nielsen	1984	Organization Development is the attempt to influence the members of an organization to expand their candidness with each other about their views of the organization and their experience in it, and to take greater responsibility for their own actions as organization members. The assumption behind OD is that when people pursue both of these objectives simultaneously, they are likely to discover new ways of working together that they experience as more effective for achieving their own and their shared (organizational) goals. And that when this does not happen, such activity helps them to understand why and to make meaningful choices about what to do in light of this understanding.	Expand candidness; increase accountability; achieve individual and organizational goals
Warrick	1984	Organization development is a planned, long-range systems and primarily behavioral science strategy for **understanding, developing, and changing organizations to improve their present and future effectiveness and health**.	Improve effectiveness and health

Table 1. Organization Development Definitions (continued)

Burke & Schmidt	1985	Organizational development is **a process which attempts to increase organizational effectiveness** by integrating individual desires for growth and development with organizational goals. Typically, this process is planned change effort which involves a total system over a period of time and these change efforts are related to the organization's mission.	Increase organizational effectiveness
Beer & Walton	1987	Organization Development comprises a set of actions undertaken to **improve organizational effectiveness and employees' well-being**.	Organizational effectiveness & Employee well-being
French, Bell & Zawacki	1989	Organizational development **is a process of planned system change that attempts to make organizations better able to attain their short and long term objectives.**	Obtain long and short term objectives
Vaill	1989	Organization development **is an organizational process for understanding and improving any and all substantive processes an organization may develop** for performing any task and pursuing any objective. A "process for improving process"--that is what OD has basically sought to be for approximately 25 years.	Improving processes
McLagan	1989	Organization Development: Assuring healthy inter- and intra-unit relationships and **helping groups initiate and manage change.** Organization development's primary emphasis in on relationships and processes between and among individuals and groups. Its primary intervention is influence on the relationship of individuals and **groups to effect and impact on the organization as a system**.	Initiate and manage change to effect and impact the organization
Porras & Robertson	1992	Organizational development is a set of behavioral science-based theories, values, strategies, and techniques aimed at the planned change of the organizational work setting **for the purpose of enhancing individual development and improving organizational performance**, through the alteration of organizational members' on-the-job behavior.	Enhancing individual development and organizational performance
Cummings & Worley	1993	Organization development is a systemwide application of behavioral science knowledge to the planned development and reinforcement of organizational strategies, structures, and processes **for improving an organization's effectiveness**.	Improving organizational effectiveness
Burke	1994	Organization development is **a planned process of change in an organization's culture** through the utilization of behavioral science technologies, research, and theory.	Culture change
Church, Waclawski & Siegal	1996	Organization development is a field based on values—promoting positive humanistically oriented large-system change in organizations—plain and simple. ...if they are not morally bound to the core values of the field then they simply are not doing O.D. ...OD is about **humanistic change on a system-wide level**. ...It is about **improving the conditions of people's lives in organizations**. ...O. D. is about helping people in organizations.	Humanistic change on a system-wide level; improving the conditions of people's lives
Dyer	1997	Organization Development is a process whereby actions are taken to **release the creative and productive efforts of human beings at the same time achieving certain legitimate organizational goals such as being profitable, competitive, and sustainable**.	Release creative & productive efforts; Profitability, competitiveness and sustainability
French & Bell	1999	Organization development is **a long-term effort**, led and supported by top management, **to improve an organization's visioning, empowerment, learning, and problem-solving processes**, through an ongoing, collaborative management of organization culture--with special emphasis on the culture of intact work teams and other team configurations--using the consultant-facilitator role and the theory and technology of applied behavioral science, including action research.	Improve visioning, empowerment, learning and problem-solving processes

Exploring The Dependent Variables of OD

In an effort to explore the dependent variables identified in the definitions presented above, seven experienced OD practitioners (no overlap of membership from the aforementioned expert review panel), with an average of over ten years of experience and all with advanced academic degrees, were asked to review the definitions and the dependent variables. The group of OD experts consisted of three men and four women, six European-American and one African-American. All were born in the United States. Participants were invited to come to a meeting room in a suburban office building in the Midwestern United States to meet for a two-hour focus group associated with OD.

Because many of the OD definitions have more than one dependent variable listed, each dependent variable represented from the 27 identified definitions was included. A single card was created for each of 60 dependent variables. Utilizing the process for creating affinity diagrams (Scholtes, Joiner, & Streibel, 1996), instructions given to participants were to examine the cards. The 60 cards were placed face up and in random order on a large table. Participants were gathered in front of the table on which the cards were positioned side-by-side so that participants could read the writing on each. The group of experts was given instructions from a single facilitator to feel free to move each the 60 cards into any formation or categories that seemed appropriate. Participants were asked not to talk during the activity until the sorting process had reached stagnation. There were no questions posed from participants. During the process, the facilitator did not intervene or talk to any of the participants.

The OD experts reviewed and sorted the 60 cards on which were listed the dependent variables from the definitions of OD. There was no time limit. After sorting the cards for approximately fifteen minutes, the OD experts stopped the sorting process. Without intervention from the facilitator, participants discussed the categories that were created and finalized their organization of the categories of dependent variables. Without prompting from the facilitator, participants asked for additional cards and decided to name each of the ten columns that were constructed as part of the card sort activity. Participants reached consensus in describing the categories as representative of ten key dependent variables in OD. The ten items included the following:

- Advance Organizational Renewal
- Engage Organization Culture Change
- Enhance Profitability and Competitiveness
- Ensure Health and Well-being of Organizations and Employees
- Facilitate Learning and Development
- Improve Problem Solving
- Increase Effectiveness
- Initiate and/or Manage Change
- Strengthen System and Process Improvement
- Support Adaptation to Change

According to the OD experts, examination of the results of this exercise provide an opportunity to consider some key features of existing dependent variables in organization development.

Implications of the Ten Dependent Variable Categories

The ten dependent variables represent categories from the definitions that have contributed to the shaping of OD as a field of study and practice. Regardless of the method of inquiry, categories play an important role in the understanding of a phenomenon (Dey, 1999). For positivist or quantitative researchers, the units and categories make up the core elements of a theory (Dubin, 1976). Categories are important features which enhance our understanding and abilities to communicate about phenomena whether they provide structure for those undertaking biology, rocket science or cooking in the kitchen. Categories matter because they help us to organize, compare and interpret physical matter and human interaction. According to Medin and Barsalou (1987), categories serve four key purposes: classification, inference and prediction, generation, and productivity. To suggest that categories provide an opportunity for understanding does not mean that categories are static or that their construction is the only or best way to order the subject at hand. Instead, categories represent an association of distinctive features whose properties can be attributed through analysis. The dependent variable categories created by the research participants provide an opportunity to examine the aims of OD within a new framework.

Conclusion

OD is not the only field to have had discussions about definitions and identity. The field of Human Resource Development (HRD), a relative to OD, has been having periodic discussions regarding identity and definition as well (McLean, 2000). Discussions in HRD centered on the identification of relevant theories and related fields, the importance of performance, the impact of particular HRD orientations to practice, and the dilemmas created through an examination of the global context. Many of these conversations are similar to those occurring in the OD literature and among practitioners. It seems that many OD theorists who have discussed the evolution of organizations have properly identified the importance of ongoing clarification of mission, purpose and vision, which often relate to intended outcomes or dependent variables, such as those listed above. Efforts to further investigate and extend understanding regarding the definition and the dependent variables associated with OD are needed. The future success of OD and the focus of associated practice and literature are dependent upon continuing dialogue and investigation into practices and outcomes.

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Career Goals of Non-Managerial Women: An Adaptive Approach

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While the past twenty years has seen a significant increase in research on managerial women, little has been written on non-managerial women's career development. This exploratory study investigated non-managerial women's career plans. Four themes emerged from the data, suggesting these women take an adaptive approach regarding their careers.

Keywords: Women, Careers, Non-managerial

Problem Statement

As women's participation in the workforce has increased, so has the research on women and work. In the past twenty years there has been a significant body of literature focusing on women's career development issues. Much of the research has attempted to help us understand why women still are underrepresented in many prestigious occupations, why women still are segregated into certain jobs, and why women still find it difficult to reach the upper-echelons in organizations. Some of this work has focused on the need for alternative career development theories/models to explain women's career progress in organizations (Caffarella & Olson, 1993; Gallos, 1989; Larwood & Gutek, 1987; Schreiber, 1998). Others have focused on glass ceiling issues and what has deterred and facilitated women's advancement in organizations (Bierema, 1996; Cafarella, Clark, & Ingram,1997; Ohlott, Ruderman & McCauley, 1994; Ragins, Townsend, & Mattis, 1998; Wentling, 1996). Additional research has emphasized women's career goals and aspirations (Arnold, 1993; Eccles, 1994; Erwin & Stewart, 1997; Harmon, 1989; Murrell, Frieze, & Frost, 1991; Nauta, Epperson, & Kahn, 1998).

These studies suggest that the human resource development (HRD) function can play an important role in helping women develop their careers (Bierema, 1996; McDonald & Hite, 1998; Wentling, 1996). However, the majority of gender-based research in HRD has concentrated on women in professional occupations (particularly law and medicine) or in managerial jobs (those in positions of authority over programs or people). Additionally, most of the literature regarding women's goals and career aspirations has focused on high school and college students. Very little empirical research has been done on non-managerial women's career aspirations and plans. These women are not in positions of authority. Instead, they are on the front lines of organizations, serving customers, making sales or working in clerical capacities. They have been ignored in most HRD initiatives and by most research endeavors. We know very little about the goals and interests of this group of working women, inappropriately assuming that by focusing on women in management, we have adequately explored women's roles in the workplace. This exploratory study was designed to help bridge that gap in information by examining non-managerial women's perspectives of their careers and the factors that have facilitated and hindered their career plans. Are these women happy with their work roles or do they desire more? Are they on the front lines by choice or due to lack of opportunity? The dearth of research on this population promoted the use of existing frameworks that address gender, studies on managerial women and on the career aspirations of young women, as a starting point.

Theoretical Framework

An examination of research on women's career aspirations and choices reveals a few continuing themes and some unanswered questions. Looking at careers from a global perspective, advocates of career models for women suggest that women's careers cannot be understood, developed, and/or evaluated using many of the traditional career development models/theories, because the focus is on the male experience. Gallos (1989) wrote: "Women's distinctive developmental voice and needs point to fundamentally different career perspectives, choices, priorities, and patterns for women that need to be understood and appreciated. . . "(p. 127)

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Many studies highlight life and career considerations. For example, when female students discuss occupational and career choices, they consider a variety of issues. Eccles (1994) wrote: "... Occupational choices are not made in isolation of other life choices, such as the decision to marry and have children, and the decision to balance one's occupational behaviors with one's other life roles..." (p.605). Perhaps the most pervasive theme in the literature is that family issues such as marriage and children do influence women's goal aspirations and attainment (Arnold, 1993; Erwin & Stewart, 1997; MacKinnon-Slaney, Barber, & Slaney, 1988; Murrell, et al., 1991). For example, Arnold (1993) in a longitudinal study of high school valedictorians, found that the women in her study anticipated interrupting their careers to raise children. She concluded that:

> Women perceive, realistically, that high level careers require great commitment. Prestigious male-dominated occupations demand continuous employment and long hours of work. Some women respond to these perceived future demands by lowering their career goals. Other forge ahead and hope that somehow they can juggle valued roles (sic) (p. 175).

In addition, some studies focus on differences in aspirations by gender, by race, or by type of career goal. For example, women appear to have lower career aspirations than men (Bayley, 1992; Arnold, 1993). Arnold (1993) illustrated one possible reason for this again:

> Unlike their male peers, who progressively narrowed their career choices during college, the study women pursued a "contingency" approach, with plans remaining open and shifting in the face of expected juggling of work, marriage, parenting, leisure, and community roles. The pressure to remain open to future marriage and family needs that were unknown and uncontrollable during college hindered career planning for many of the women (p. 170).

Further, Bayley (1992) noted that white females' career aspirations were lower than those of black females. Finally, Murrell, et al. (1991) found that female college students indicating a desire to work in male-dominated occupations, had higher career and education aspirations than women who planned to work in female-dominated occupations.

The majority of the studies cited above focused on the career aspirations of high school and college students. One notable exception was Wentling's (1996) research on the career aspirations of women in middle management. She concluded that many in her sample lacked a career strategy and some "had not realized they wanted a career or that it was even a possibility" (p. 265).

While recognizing that not all women have the same aspirations or interests, studies with managerial women may offer ideas to consider when exploring the career goals of non-managerial women. For example, the research on women managers informs us of the factors most likely to assist women in their career development and advancement within organizations. Managerial women frequently cite the importance of "stretch assignments" and taking on risky tasks as being important to their advancement (Catalyst, 1996; Ragins, Townsend, & Mattis, 1998; Wentling, 1996). Demonstrating competence and performing well on the job (Ragins et al, 1998; Ruderman, Ohlott, & Kram, 1995; Wentling, 1996), being assertive and persistent (McDonald & Hite, 1996), and having good mentors (Hansman, 1998; Ragins, et al, 1998; Wentling, 1996) are often mentioned as additional important factors influencing women's career progress.

Another area of research that may be useful when reviewing the career aspirations of non-managerial women is the work on barriers to career development for female managers. Women managers perceive that discrimination (Cafarella, et al., 1997; Ragins, et al., 1998; Ruderman et al., 1995; Wentling, 1996), unsupportive bosses (Wentling, 1996), and a lack of understanding of the political climate of an organization (Ragins, et al., 1998; Wentling, 1996) hinder their career advancement and opportunities. Other deterrents to women's advancement include lack of general management and line experience (Ragins, et al., 1998), less exposure to assignments involving risk and visibility (Ohlott, et al., 1994), and difficulty adapting to the corporate culture (Bierema, 1996).

While the literature to date provides HRD practitioners with some knowledge and recommendations regarding the career aspirations and strategies of women managers, little research has examined the career choices and plans of non-managerial women. What factors affect non-managerial women's career choices? Do the same facilitators and deterrents cited by the literature on managerial women affect the careers of their non-managerial cohorts? This study begins to investigate these issues.

Research Questions

This study explored non-managerial women's career aspirations and planning. The questions posed were focused on aspirations and actual career experiences, with the goal of learning more about what this group of women wanted and what they received from their work lives. The term "career" used in the questions was defined to the participants as referring to paid or unpaid work. The following questions were addressed:

- What were some of your early career plans?
- How have these plans changed over the years?
- How does your current job fit your career plans?
- What has helped you fulfill these career plans?
- What has hindered you from fulfilling these career plans?
- How has this organization helped your career plans?

Methodology

The subjects for this study were twenty-six (26) women employed in non-managerial positions. Four focus group discussions were conducted to gather data related to participants' career goals and development. Focus group methodology is recommended when the study is exploratory and when "factors related to complex behavior or motivation" are being examined (Krueger, 1994, pp. 44-45). We wanted to obtain data that "emerges from the group" (Krueger, 1994, p. 45). Focus group discussions provide a forum where subjects can interact with one another in a non-threatening manner. Erwin & Stewart (1997) suggested that "diverse ideas may be evoked, inhibitions released, new questions stimulated, and greater diversity of opinions revealed with greater spontaneity in focus groups" (p. 211).

The focus group participants represented a convenience sample. Human resource representatives from two organizations were contacted to determine their interest in this project. These individuals solicited volunteers to participate in this project, with the only parameter being that the potential participants occupy front line positions, as opposed to having responsibility for managing people. Three focus groups involved women employed in a large utility company, the fourth one consisted of females working in a large manufacturing company. The focus groups had 6 or 7 participants each.

Each focus group began with a brief overview of the purpose of the discussion and a definition of career plans. The six major questions listed above were presented to each group to answer. Each focus group discussion was 1-12 hours in length. Company representatives indicated we needed to abide by these time constraints, which may be a limitation of the study. However, there was sufficient time to obtain responses from all participants regarding each question and we began to hear redundancies in responses by the end of each focus group discussion. One researcher served as moderator, while the other took notes. Throughout the discussion, both the moderator and note taker verified participant responses through the use of clarifying questions, additional probes and paraphrasing responses. Immediately following each discussion, a debriefing between the moderator and note-taker took place to discuss "first impressions" and compare and "contrast findings from earlier focus groups" (Krueger, 1994, p. 128). The discussions were tape recorded for review and preparation of abridged transcriptions. Each researcher analyzed the session notes and transcriptions independently to determine major themes emerging from the four groups. The researchers then met to compare findings and to reach agreement on the major themes. Additionally, the abridged transcripts were read and analyzed by an independent researcher, not associated with the project, to control for potential bias in interpretation (Krueger, 1994; Marshall & Rossman, 1989).

Demographics

The twenty-six participants in this study represented a range of ages and experience within their respective companies. Seven of the women reported to be in the 41-50 year age range; six were 34-40; five were 26-33; and four each were at the highest and lowest ranges, 18-25 and 51-60. Regarding years with the organization, half of the participants (13) noted 1-10 years with their companies; eight indicated 21 years or more; five said 11-20 years. Educational levels among the participants varied as well, with nine reporting high school diploma or GED as their highest educational credential; eleven noting post high school work or associate degrees; and six indicating bachelor's degree completion.

The nature of this sample (non-managerial women) also drew a wide range of position titles and responsibilities. Job titles included sales productivity leader, customer account specialist, lead graphics dispatch clerk, executive administrative assistant, accounting clerk, and equipment processor.

The variety of chronological and service years added strength to the study, although the numbers were small. Additionally, varied positions offered another level of complexity to the sample that enriched the data while illuminating the variety of experiences among participants.

Results

Based on an analysis of the six questions asked of focus group participants, four themes emerged: adaptive goals, family influence, security needs, and organizational support.

Adaptive Goals

The overall theme of adaptation is evident throughout these results. The data reveal a pattern of adjusting goals to meet life circumstances. This tendency shows a pragmatic focus, solidly based in the reality of the current situation, as opposed to setting long term plans. As one woman observed, "I work from a practical standpoint. I want to get the maximum out of what I've got the training for…." The first indication of this perspective was when in response to the first question about early career plans, many of the participants began by describing how they had changed their goals over the years, in response to the context of their lives. One woman said her goals had changed to adjust for "real life." Another agreed, stating, " Life doesn't always turn out the way you planned." The term "evolved" was used by several of the participants to describe how their career goals had altered over time. Yet as they went on to describe the cycles of events that led to their revised goals, the processes sounded much more like conceding to circumstances than purposeful evolution. For example, the job changes usually were unplanned and typically were the result of non-work-related decisions.

Other respondents to the first question about early goals showed an interesting dichotomy that also plays into the adaptive mode. At one end of the spectrum, some of the older participants noted they had the traditional choices offered to women: teacher, nurse, secretary, homemaker, so they chose one of the latter two options. These women made other statements regarding not being encouraged to pursue higher goals or not being prompted to set goals at all. One woman illustrated this by stating, "I had three choices, I could be a homemaker, I could be a nurse, or I could be a secretary…. My dad felt college was wasted on girls."

Another group of participants cited early non-traditional goals that one described as "lofty," including physician, veterinarian, and lawyer. These goal revelations were followed by explanations about why they decided against those choices. The reasons for changing plans included financial constraints that precluded college, greater interest in marriage and family, or simply finding work at a good wage preferable to more career preparation.

Family Influence

Family appeared as a clear priority in all of the groups. Family responsibilities were cited as guiding the career choices and goal revisions of many of the participants. One woman stated this clearly as she explained her decisions:

> I actually thought about goals probably 4-5 years after I started working here, thinking about what would I really like to do and what would I change and I knew it would require going back to school. But as a result of having one child at that time and wanting another one within a few years, I made a personal decision that I'm just not going to pursue anything further for me because I want to have kids and I personally know I can't do it all.

Another woman offered this explanation for the family over career choice, "I think women have had difficulty always setting career goals, because culturally we are the nurturers and we are the ones having children and by whatever design, culturally or morally or whatever, we tend to make sacrifices of ourselves."

Family responsibilities also were cited a career restraint, with examples given about opportunities turned down or educational credentials not pursued, because of the desire to be more available to children. Often the potential opportunities involved travel or less flexibility, factors that directly influence home life. For example, one woman responded, " Other personal commitments I found have hindered me. After I had been here a year and a half, I was offered a promotion that I turned down because my husband had died a year and a half before, and I knew it involved a lot of overtime….I wasn't willing to put my daughter through that."

While it was evident throughout this study that the participants had made multiple adjustments in their own career plans to accommodate family needs, they also were clear about being satisfied with those choices. Several of the women pointedly said they had no regrets about their decisions to put their families before their careers. Whether that satisfaction was genuine or simply a means of coping with dissonance over lost opportunities could not be determined from the available data. Their pragmatic approach to careers could be used to make a case for either interpretation.

Security Needs

The mindset of family before career also appeared to prompt a high need for job security and a reluctance to risk or to move on. While there were a few exceptions, many of the participants expressed a strong desire to stay with what they knew to be a secure job with good benefits, putting off additional schooling or career advancement opportunities until children are older or more self-sufficient. One woman articulated the difficulty that presented to her, as she weighed putting more time into her career versus having more time with her child. "It's very difficult. It's a constant struggle for me. I want to be the best mom in the world. That's what I want most of all…However, progressing in my career is going to bring more money, which would make things easier for us. I'm a single mom."

Another participant expressed frustration over wanting a different job, but not wanting to sacrifice the accumulated time off she uses to visit grandchildren in other parts of the country. She said, "I'm struggling daily with it. Do I leave here? Do I leave twenty years of service, five weeks of vacation, you know, just to be able to find something I like doing better, or do I put up with whatever they give me because I do have this long service?" One of her cohorts immediately described this has her "golden handcuffs," recognizing the strong hold of perks and loyalty that come from many years of employment with the same organization, even when the job is less than desirable.

Others commented on the value of having steady employment and good benefits to provide for family members. As one woman observed:

> I stay in the job that I have now because of fear if I get a management job I might be chopped off next week…I stay in the job that I am…As far as me spreading my wings now and saying this is what I want to be when I grow up, I'm probably not going to do that, because I'm a single mom and I have that fear that I could lose my job…

Similarly, another participant commented on her own pragmatism in her choices, saying "I've just stayed there, because what was important to me was making a good wage where I have skills and in a corporation of this size, that's where the better wages are and keeping the benefits…."

Other observations focused more on the desire not to risk or to change what has become customary, even if family needs no longer are primary. For example, these two perceptions were shared: "Once you get comfortable, once you get in a place that you like, but you know you need to grow…What is supposed to be the next step and what will give you the confidence to go forward?" "You get in a comfort zone and it's hard …to get out and stretch." These comments fit with those of another respondent who cautioned a younger employee not to stay in the same place too long or she will limit her options.

Support Factors

Coupled with the priority given to family and security interests was the desire for scheduling flexibility to accommodate family responsibilities. Many of the participants highlighted the importance of job flexibility to help them accommodate the needs of their families. This came up as they described their job-related choices to date and was reiterated when they reflected on how their companies have been helpful in their career plans. Another organizational factor cited as helpful was a tuition reimbursement programs, although family obligations were mentioned by many of the participants as the reason they have not taken full advantage of this opportunity.

It was acknowledged widely that when advancement did come in their careers, it was in no small measure the result of good mentoring and supervisory support. While these commodities seemed rare among those in this study, a few noted their professional benefit. One of the higher risk-takers among this group expressed satisfaction with her career, and readily praised her mentor within the company, noting "If it had not been for him, I don't think I'd be where I am." Related statements included the importance of knowing the "right" people and getting supervisors' recommendations for moving up in the organization.

Not surprisingly, the lack of support was acknowledged as a hindrance to fulfilling career plans. Perhaps as another indication of a willingness to adapt rather than to initiate, or another example of pragmatism, participants in this study clearly viewed management as having power in deciding who has advancement opportunities. One observed, "We cheerlead for each other, but we don't necessarily get that from, say, people…that have the sphere of influence that we need to pull ourselves up." Another voiced her disappointment in being held back by an non-supportive supervisor, "I've been in departments where supervisors have put big restraints, big restraints. You're capable of so much more and they just won't, don't see it. They won't allow it… very frustrating."

Discussion and Recommendations

The participants in this study echoed several of the themes found in previous research on women's careers. These non-managerial women made career choices that were similar to Eccles' (1994) and Arnold's (1993) descriptions of women's occupational planning. Their career choices were greatly influenced by other life choices. Their careers reflect an adaptive approach, frequently influenced by the need to accommodate others and circumstances in their lives. Paradoxically, while their career choices could be characterized as being malleable, many of these women now seemed less flexible in career options due to their job tenure and parental responsibilities. Several appeared less open to career changes because they perceived their current jobs as paying well and offering good benefits.

Like some of the middle managers in Wentling's study (1996), the majority of these women did not articulate a clear career strategy. As previous research suggests, this lack of planning is related to socialization and family issues. Additionally, this research reaffirmed the importance women place on mentors in their career development. However, while the women in this study discussed mentoring and its importance, it was unclear whether they had had mentors. Only one woman spoke of her personal experience having a mentor and the role that individual played in her career.

The participants in this study focused primarily on extrinsic factors when discussing those things that helped and hindered their careers. Using the gender comparison of managerial women, the literature indicates that external factors such as mentors, family responsibilities, bosses, etc. influenced their careers. However, the research also reveals the importance of intrinsic factors, such as taking initiative, being assertive, being persistent, and taking risks, in their career development. In general, the women in this study did not focus on these types of intrinsic factors. Instead, several expressed concerns about taking risks and exploring other career options. This appears to be a major point of contrast between managerial and non-managerial women.

Given the exploratory nature of this study, the small sample, and the limited types of industries represented, more research is needed to determine if non-managerial women perceive extrinsic factors as more salient to their career progress than intrinsic factors. A number of variables, such as age, locus of control, and self-efficacy must be considered as potential influences on these factors. In addition, the culture of the organization may play a role in how women perceive their developmental opportunities.

The women in this study mentioned few HRD initiatives as being instrumental in their career development. Several indicated they participated in training programs offered by their organizations and some had taken advantage of company tuition reimbursement programs. Overall, while HRD benefited some, all the members of this study did not see it as a critical factor. Consequently, the potential need for HRD intervention is unclear for women in non-managerial positions. However, in an era when organizations must continually monitor, realign, and change in response to the turbulent and unpredictable external environment, it is imperative that individuals be prepared for careers that are nimble as well. The findings of this study suggest that non-managerial women may benefit from assistance in career planning to help them explore ways to maximize their potential, whether they stay in their current jobs or choose to move on.

Contribution to HRD Research

HRD clearly has the potential to contribute to the career progress of all women. To date, however, the research has focused primarily on the careers of managerial women, and how they attempt to succeed in organizations. This study explored the career aspirations and plans of non-managerial women to help HRD practitioners better understand the needs and interests of women at various levels within organizations. More research needs to be done to determine how to address the needs of non-managerial women who want more advancement opportunities. For example, research should explore whether the barriers to advancement facing non-managerial women are the same as those encoumtered by managerial women or by non-managerial men. HRD also can assist non-managerial women not wanting to move up to remain challenged and interested in their jobs by focusing on career development and training.

As competition and labor shortages increase, there is a need for non-managerial employees to take on more responsibilities and to contribute more directly to systems level success. Understanding the career aspirations and plans of non-managerial women can help HRD as it attempts to maximize the potential of all organizational associates.

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The Career Life Cycle and Mentoring: The Opportunity for Reflection as an Outcome for Mentors

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This is a quantitative look, within the framework of the Life Cycle of the Career Teacher (Steffy & Wolfe, 1997), at whether mentors find mentoring to be an opportunity for reflection and what mentoring activities are predictive of that opportunity. Results suggest that, among these educators, mentoring was a vehicle for mentor reflection, particularly among women. Demonstrating organizational skills and promoting independent thinking were predictive of the opportunity to reflect.

Keywords: Mentor Outcomes, Opportunity for Reflection, Career Life Cycle

Mentoring initiatives have become popular among organizations, both in business and industry and education, for the professional and personal growth of employees (mentees) through mentor coaching, role modeling, professional development plans, observation and feedback, demonstration and direct assistance (Van Ast, 1999). The popularity of mentoring seems to grow as the evidence of its value as a professional development tool expands (e.g., Chao, Walz, & Gardner, 1991; Dreher & Ash, 1990). Interest in mentoring, both in terms of relationships initiated by the mentor or mentee and relationships initiated by the organization, can be seen in both the educational arena and in business and industry. This study focuses on mentoring in education from the perspective of the Life Cycle for Career Teachers (LCCT) model (Steffy & Wolfe, 1997) because of mentoring's striking relevance and importance to the model's process of reflection, growth and renewal. Certainly, mentoring is targeted at professional as well as personal growth and serving as a mentor would presumably provide one the chance to reflect on one's career. This study examined the opportunity to reflect as an outcome of being a mentor and what mentoring activities are predictive of it. The LCCT model and how mentoring fits into it are described below and relevant mentoring literature, from both the business and education perspectives, is discussed.

Mentoring in Business and Industry

An increasing body of studies has shown generally positive consequences of mentoring, with research focusing largely on outcomes for mentees; we know far less about the effects on the mentor. Mentees in business and industrial settings most often report increased salary as an outcome, but mentored individuals also report more promotions, career advancements, and more mobility within organizations (e.g., Aryee, Wyatt, & Stone, 1996; Baugh, Lankau, & Scandura, 1996; Chao, 1997; Scandura & Schriesheim, 1994; Turban & Dougherty, 1994). Mentor benefits potentially include the development of relationships, gaining new information, receiving job-related help, and imparting knowledge to others (e.g., Allen, Poteet, & Burroughs, 1997).

Intrinsic benefits associated with being a mentor most often described in the literature are job satisfaction and perceived career success, as well as more internal satisfaction, satisfaction in helping others, and new perspectives of a mentor's own situation (Allen, Poteet, & Burroughs, 1997; Ayree et al., 1996; Chao, 1997; Corzine et al., 1994; Ragins & Scandura, 1994; Scandura, 1997; Thibodeaux & Lowe, 1996; Turban & Dougherty, 1994). Still, the majority of mentoring research has focused on outcomes for the mentee while the work focusing on mentor outcomes remains largely nonempirical. Mullen (1997) recently suggested dual foci on mentoring as a reciprocal relationship that benefits *both* mentor and mentee. Companies using mentoring programs can also reap rewards, such as increased employee satisfaction, and can shape their programs to fit corporate agendas (Berube, 1996; Scandura, 1997). Thus, the mentee, the mentor and the organization all stand to gain from a mentoring intervention.

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Mentoring in Education

Mentoring has also been widely viewed as beneficial in the educational arena (e.g., Bush & Coleman, 1995; Rehrig, 1996; Southworth, 1995). Mentored teachers tend to have a better understanding of student needs, and their students show greater learning (e.g., Dembele, 1996; Van Ast, 1995; Mullen & Van Ast, 1999). Mentoring programs enable faculty to improve instructional materials, keep up-to-date on new technology and teaching methods, and to network with other faculty (Foote, 1996).

Mentored teachers also report intrinsic benefits, such as mutual respect, trust, emotional support, and personal development (e.g., Abell, 1995). Campbell (1995) reported that protégés felt less of a need to seek help than nonprotégés. According to Graham (1994), mentors were reminded of the value of their past experience and received an opportunity to examine their own practices, and protégés obtained insight into their style of learning and working and were more confident. Although faculty mentoring programs tend to produce benefits, they appear to be potentially less helpful in terms of career advancement than in other aspects (e.g., Shumate, 1995).

The Life Cycle of the Career Teacher Model and Mentoring

The Life Cycle of the Career Teacher (LCCT) Model by Steffy and Wolfe's (1997) illustrates the developmental phases of career growth among teachers. It also prescribes that support is necessary for positive growth and evolution through the phases. Mentoring would appear to be a critical component of the career life cycle for educators. Having a mentor helps the educator grow and develop in the earlier phases, while serving as a mentor helps the educator continue to grow and develop in the latter phases. The LCCT phases include the Novice, Apprentice, Professional, Distinguished, and Emeritus phases.

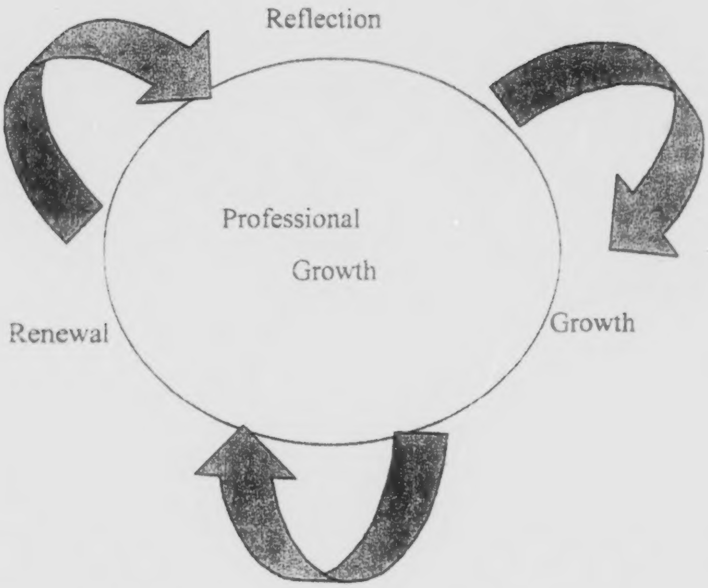
The Novice level encompasses the practicum, student teaching, and intern experiences for preservice teachers and is marked by continued skill development and growth in awareness as well as experience. The Apprentice phase begins when the preservice teacher is given full responsibility for planning and delivering instruction and continues into the first-third years as a teacher. This phase is characterized by enthusiasm, energy and passion within the new teacher. The Professional phase of the model describes teachers as growing in self-confidence and gaining motivation externally through feedback from students. Teachers in the Professional phase tend to seek opportunities for continued growth, but may not get enough administrative support because the latter don't perceive the need. The Expert phase is reached when the teacher's performance meets national certification requirements and his/her expertise is "cutting-edge" but still evolving.

The Distinguished phase of the cycle is reached only by those teachers who are considered exemplary by their peers and administrators. Finally, the Emeritus phase includes teachers who have served a lifetime in the expert or distinguished phases of the career life cycle. According to the model, reflection is a critical piece in the evolution towards self-actualization. The current authors suggest that mentoring experiences play a prominent role throughout the phases of the LCCT, beginning with experiences as a mentee and advancing to experiences as a mentor (Steffy & Wolfe, 1997). Thus the investigation into mentoring outcomes, in this case the reflection opportunity in particular, and their predictors is integral to the examination of the career life cycle. While the LCCT was developed with a K-12 educator focus, this study extended the model to other educators.

Research Question

Central to the LCCT model is the idea that professional educators continue to grow and develop through the process of reflection, growth and renewal (Steffy & Wolfe, 1997). Mentoring can play a very important role in that process. This study contends that mentoring is an important vehicle for reflection and looks at the opportunity for career reflection as an outcome of serving as a mentor. The study addresses the question: What mentoring activities are predictive of the opportunity for educator mentors to reflect on their careers? Looking at the mentor's experience within the career life cycle framework: 1) adds depth to the model by incorporating serving as a mentor as an instrumental vehicle for career reflection and renewal; 2) expands the body of knowledge about outcomes associated with being a mentor; and 3) expand the application of the LCCT model to include K-12 administrators, community college instructors, and university faculty. The results will provide unique insight into the role of mentoring in one's

Figure
Life Cycle of the Career



Novice - Apprentice - Professional - Expert -

Reflection is a central component for promoting growth over a professional lifetime career life cycle via the opportunity for career reflection that can emerge from serving as a mentor. If we can find what mentoring activities are related to the opportunity to reflect, then we can potentially maximize both the engagement in mentoring activities and the opportunity to reflect throughout the phases of the LCCT.

Methodology

Participants

Data (overall n = 84) were gathered from three subsamples, including: 1) 25 mentors involved in a structured mentoring program for K-12 educators enrolled in a graduate program for school administration preparation; 2) 21mentors who had been involved in a 2-year structured induction and mentoring program for community college instructors; and 3) 38 faculty who had mentored in a nonstructured faculty mentoring program at a large university.

Data Collection Methods and Measures

Questionnaires were mailed to respondents to gather information regarding mentor activities and the opportunity for mentor reflection. The relationship between opportunity for reflection and mentoring activities items was examined via quantitative analyses described below. Mentor activity items developed for a recent related study (Mullen, Van Ast, & Grant, 1999) were used to quantitatively measure the extent to which mentors engage in various mentoring activities, including: 1) "Matching needs of mentee with a structured plan for growth and improvement;" 2) "Identifying and affirming mentee responsibilities;" 3) "Identifying role expectations and communicating them clearly;" 4) "Encouraging mentees' efforts through consistent and appropriate feedback;" 5) "Demonstrating well-defined organization skills;" 6) "Utilizing collaborative teaching/learning methods;" 7) "Encouraging independent thinking;" 8) "Listening to mentees with an open and accepting attitude before responding;" 9) "Promoting mentee risk-taking;" 10) "Diagnosing mentee needs at the beginning of the relationship."

These items were developed based on activities used in a community college induction/mentoring program (Van Ast, 1999). The response format for the mentoring activities items provided a 5-point scale ranging from 5 = extremely important to 1 = no importance. The opportunity to reflect was measured via an item asking to what extent the mentor had experienced the opportunity to reflect as an outcome of mentoring (5 = very large extent to 1 = very small extent). Demographic items, targeting information regarding gender, tenure, and job type (faculty or administrative), were also included, as were items seeking information regarding the mentoring relationship, e.g., number of formal mentees; frequency of communication with one's mentee; and hours per month spent with one's mentee; and formal or informal mentor training.

Data Analysis Strategy

SPSS-PC was used to analyze the data generated via the questionnaire described above. The analyses involved generating descriptive statistics, including means and standard deviations, computing Cronbach's alphas, and running Pearson correlation coefficients and multiple regression equations within and across the three subsamples. The backward regression technique was used to determine which of the mentoring activities measured (i.e., independent variables) were predictive of the opportunity for the mentor to reflect (i.e., dependent variable). The data were analyzed by subsample and as a combined sample to allow us to look both within groups and across all mentors.

Results

Eighty-four of 214 mentors responded to the questionnaire for an overall response rate of 39%, including 38 of 96 university mentors (40%), 21 of 56 community college mentors (38%) and 25 of 62 K-12 principal mentors (40%). Within the overall sample, the average respondent was a male (61.2%) nonadministrative faculty member (57.6%) who had formally mentored 1-2 (mean = 1.39) mentees and spent an average of 1.83 hours per month with his mentee. The average university mentor respondent was male (76.9%); a nonadministrative faculty member (82.1%); had mentored 1-2 (mean = 1.42) mentees formally; and spent 1.41 hours per month with this mentee. The average respondent from the community college subsample was male (66.7%); a nonadministrative faculty member (71.4%); had formally mentored 1 (mean = 1.14) mentees; and spent an average of 1.95 hours per month with the mentee in question. The average principal mentor respondent was female (60%) administrator (92%); had formally mentored 1-2 mentees (mean = 1.56); and spent 2.39 hours per month with her mentee.

Respondents in the overall sample indicated that the opportunity for reflection was fairly important (mean = 3.26)(See Table 1). The mean responses regarding reflection opportunity for the subsamples were 2.77 for university mentors; 3.06 for community college mentors; and 4.14 for principal mentors. Means on the mentoring activity items for the overall sample ranged from 3.40 for "utilizing collaborative teaching/learning methods" to 4.25 for "listening to mentees with an open/accepting attitude," indicating average responses in the "important" to "very important" range. Mentoring activities mean responses for the subsamples ranged from 2.70 to 4.03 for the university mentors; from 3.55 to 4.40 for community college mentors; and from 4.08 to 4.58 for the principle mentors. Patterns among the Pearson correlations for the overall sample included opportunity for reflection being significantly related to gender (women perceived reflection opportunity as more important) and to all the mentoring activities except "utilizing collaborative teaching/learning methods" (see Table 1). Gender was related to 6 of the 10 mentoring activities, with women reporting higher usage than men.

Table 2 reflects the results of the backward multiple regression. These analyses indicated that, among the university mentors, demonstrating organizational skills was significantly related to the opportunity for mentor reflection (see Table 2). Encouraging mentee independent thinking was a significant predictor of the opportunity to reflect among the community college mentors (see Table 2). For the principal mentors, identifying role expectations, matching mentee needs to a plan, and promoting mentee risk-taking were all significant predictors of the opportunity for the mentor to reflect (see Table 2). In the analysis of the combined data (all 3 subsamples),

Table 1. Means, Standard Deviations, and Correlation Coefficients for Overall Sample and Subsamples

Variables	Sample	N	M	SD	1	2	3	4	5	6	7	8	9	10
1. Opp. For Reflection	All	82	3.28	1.20										
	Univ	36	2.75	1.11										
	CC	21	3.10	1.22										
	Princ	25	4.20	0.71										
2. Match Mentee Needs with Plan	All	82	3.83	1.03	.37**									
	Univ	37	3.51	1.07	.28									
	CC	20	3.65	1.04	.06									
	Princ	25	4.44	0.65	.34									
3. Identify Mentee Responsibilities	All	82	3.76	0.94	.46**	.68**								
	Univ	36	3.39	1.02	.43*	.59**								
	CC	21	3.71	0.78	.19	.72**								
	Princ	25	4.32	0.63	.23	.56**								
4. Communicate Role expectations	All	83	4.13	0.93	.20	.48**	.44**							
	Univ	37	4.11	0.91	.12	.29	.30							
	CC	21	3.86	1.11	.23	.62**	.70**							
	Princ	25	4.40	0.76	.00	.72**	.42*							
5. Provide Feedback	All	83	4.10	0.89	.38**	.62**	.68**	.53**						
	Univ	37	3.73	0.96	.29	.57**	.60**	.45**						
	CC	21	4.19	0.87	.12	.59**	.67**	.75**						
	Princ	25	4.56	0.51	.26	.49*	.59**	.47*						
6. Demonstrate Organization Skills	All	83	3.40	1.16	.51**	.46**	.60**	.32**	.47**					
	Univ	37	2.78	1.06	.49**	.37*	.54**	.29	.41*					
	CC	21	3.48	1.17	.18	.39	.48*	.48*	.35					
	Princ	25	4.24	0.66	.25	.04	.31	.05	-.05					
7. Collaborative Learning/ Teaching	All	83	3.34	1.22	.43**	.43**	.44**	.19	.41**	.72**				
	Univ	37	2.59	1.26	.40*	.28	.29	.11	.23	.62**				
	CC	21	3.71	0.96	.02	.28	.22	.24	.31	.67**				
	Princ	25	4.08	0.64	.24	.61**	.45*	.36	.24	.54**				
8. Encourage Independent Thinking	All	80	3.89	1.13	.52**	.58**	.53**	.37**	.50**	.61**	.69**			
	Univ	35	3.37	1.31	.46**	.59**	.51**	.30	.42*	.58**	.68**			
	CC	21	4.19	0.81	.48*	.44	.48*	.64**	.44*	.53*	.40			
	Princ	24	4.38	0.71	.43*	.45*	.19	.34	.21	.34	.59**			
9. Listen Openly and Acceptingly	All	82	4.24	0.82	.33**	.45**	.33**	.27*	.54**	.35**	.42**	.52**		
	Univ	36	4.03	0.94	.23	.51**	.23	.10	.48**	.26	.40*	.47**		
	CC	21	4.43	0.97	.23	.39	.48*	.68**	.79**	.27	.32	.44*		
	Princ	25	4.40	0.65	.55**	.26	.29	.17	.18	.45*	.32	.59**		
10. Promote Risk-taking	All	82	3.54	1.24	.51**	.40**	.46**	.22*	.49**	.62**	.56**	.58**	.52**	
	Univ	36	2.81	1.24	.40*	.42*	.44**	.10	.43**	.69**	.51**	.46**	.42*	
	CC	21	3.95	0.97	.43	.12	.18	.41	.31	.15	.09	.45*	.44*	
	Princ	25	4.24	0.83	.34	.11	.17	.30	.16	.42*	.28	.56**	.67**	
11. Diagnose mentee needs	All	83	3.73	1.13	.34**	.51**	.47**	.29**	.44**	.34**	.24*	.49**	.30**	.51**
	Univ	37	3.41	1.21	.17	.63**	.56**	.11	.45**	.35*	.11	.46**	.24	.40*
	CC	21	3.81	1.21	.35	.14	.20	.58**	.23	.17	.08	.50*	.32	.76**
	Princ	25	4.16	0.75	.33	.45*	.15	.18	.30	-.08	.15	.20	.21	.07

*p < .05. **p < .01. ***p < .001.

demonstrating organizational skills and promoting independent mentee thinking were significantly related to mentors' opportunity to reflect in the final iteration (see Table 2).

Table 2. Backward Multiple Regression Final Iteration Results For Predicting Opportunities for Reflection With Mentoring Activities Variables

Final Iteration Beta Weights

Variable	Overall Sample	University Subsample	Community College Subsample	Principals Subsample
Organization Skills	.34**	.49**		
Independent Thinking	.36*		.71*	
Role Expectations				-.69**
Matching Needs with Plan				.86**
Risk-Taking				.40**

Note. Dependent Variable: Opportunity for Reflection.
*p < .05. **p < .01. ***p < .001.

Discussion and Implications

This research examines relationships between mentoring activities and the opportunity for mentors to reflect, a central piece of the LCCT (Steffy & Wolfe, 1997). Specifically, this study looked at what mentoring activities or practices are predictive of the opportunity for reflection as an outcome of being a mentor, expanding the body of knowledge related to outcomes for mentors and linking it to the LCCT model (Steffy & Wolfe). The data suggest that mentoring does, in fact, allow mentors to reflect on their careers. This would lead us to conclude that serving as a mentor may be a key vehicle for reflection and, thus, growth in the latter phases of a career. We've recognized for some time that mentoring is invaluable for the development of the mentee. These data indicate that mentoring may be invaluable for the development of the mentor as well.

Some interesting results emerged from the separate (by subsample) and combined data. First, different mentoring activities were predictive of mentors' opportunity for reflection for each of the 3 subsamples. This may reflect differences in populations, differences in the mentoring initiatives in each population or, perhaps, measurement issues. Further research delving into these differences is warranted. Results for the mentors in the university subsample indicated that the opportunity for reflection was related to demonstrating organizational skills for the mentee. In other words, mentors who reported demonstrating organizational skills for their mentees also reported having the opportunity to reflect as a result of the mentoring role. Thinking about how one organizes oneself is certainly consistent with reflection and one would certainly have those thoughts when demonstrating organizational skills to others. For community college mentors, encouraging mentees to think independently was related to finding the opportunity to reflect through being mentors. Again, this is an action that could certainly lead one to reflecting on his/her own thinking. With the principal data, results indicated that the opportunity for reflection was related to the mentor identifying role expectations for the mentee, matching the mentee's needs to a plan, and promoting mentee risk-taking. In other words mentors who engaged in these actions also reported gaining the opportunity to reflect through serving that role. These activities logically could all require introspection in order to engage in them.

Overall, for the combined sample, mentor opportunity for reflection was predicted by demonstrating organizational skills and encouraging independent thinking. It is intuitive that both of these activities would require some introspection, leading to reflection. The notion of having one's mentee benefit from one's successes as well as failures is completely consistent with reflection. In fact it absolutely requires it.

Not surprisingly, various mentoring activities were related to the opportunity for mentor reflection. These findings are important for various reasons. For one thing, they suggest, as was expected, that mentors do report gaining the opportunity to reflect from being a mentor. We certainly predicted that the kinds of activities mentors perform for their mentees would be related to reflection, for you could easily argue that mentors must examine themselves and their careers to engage in those activities effectively. The very notion of mentoring involves the mentor passing on to the mentee what he/she has learned through experience. When a mentee thinks about his/her experiences, that is a prime opportunity to reflect. These data support our assertion that serving the mentor role is an important part of the career life cycle because it allows the individual in later phases of the cycle to reflect and, thereby, grow and renew. This is very encouraging and supports thinking about this additional dimension of mentoring. It doesn't just help the mentee grow. The mentor stands to learn about him/herself and has a prime opportunity to reflect and grow. Administrators should encourage mentoring because both mentors and mentees stand to gain. But they should also teach mentors the mentoring activities that, while aimed at "showing the mentee the ropes," also provide the mentor an excellent opportunity to reflect and grow both personally and professionally. Activities such as articulating mentor and mentee roles and responsibilities, setting goals and developing mentoring action plans are essential to the maximization of mentor and mentee outcomes. Mentoring initiatives that incorporate these kinds of activities provide the framework and the expectations for mentors and mentees, demystifying what effective mentoring involves. According to Van Ast (1999). essential mentor functions include role modeling; assisting with a professional development plan; observation and feedback; demonstration, informal guidance; and direct performance assistance. And mentoring, as a vehicle for growth and reflection, may play a key role in the career life cycle. This is consistent with Steffy and Wolfe's (1997) LCCT model, which incorporates the themes of reflection, *growth* and renewal.

The limitations of this study should be recognized. First, self-report was utilized via a single means of data collection. Some biases may be inherent. Further, some items were developed for this study because of a lack of existing measures. These measures were piloted, but need further validation. The small size of the subsamples also presented a limitation, restricting the methods of analysis employed as well as the interpretations that could be made. Still, this is an important step toward greater understanding of the connection between mentoring and reflection on one's career.

Mentoring literature is in its infancy. This research examines relationships between mentoring activities and the opportunity for mentors to reflect, a central piece of the LCCT (Steffy & Wolfe, 1997). It builds on the body of knowledge related to outcomes for mentors, linking it to the LCCT model of career growth (Steffy & Wolfe). Much more ground needs to be covered, particularly where the mentor's perspective is concerned. In this study, we've found that there was a reported opportunity to reflect related to serving as mentors and that certain mentoring activities were related to that reflection. This will help to add depth to the LCCT model (Steffy & Wolfe, 1997). Future research should also take this line of inquiry into business and industry and examine the application of the LCCT model in that setting. It would seem that mentor reflection and the mentoring activities that lead to it should be universal, regardless of line of work. This needs to be tested. HRD professionals need to look at ways to maximize the opportunity for career reflection that serving as a mentor provides, since this reflection opportunity may be critical for continued growth. This work illustrates that we can identify mentoring activities that are related to the opportunity for career reflection. If HRD professionals can train mentors to engage in activities that not only enhance mentee growth, but provide career reflection opportunities for the mentors as well, then everyone, including the organization, stands to gain dramatically.

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Functions Performed by Mentors that Assist in the Career Development of Women Managers

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The purpose of this study was to investigate whether women managers had mentors and how the mentors assisted them in their career development. The researcher conducted in-person interviews with 30 women in middle-level management positions in 15 Fortune 500 companies. The study revealed that being an influential leader and willing to share knowledge and expertise were the characteristics the women managers most often wanted in their mentors. Also, revealed was that mentors were the most influential in the women managers' career development.

Keywords: Mentors, Career Development, Women Managers

During the past decade, business organizations have become increasingly concerned with the development of women managers. Some of the major factors which have caused this concern include the increasing number of women seeking management positions as a result of their greater participation in the labor force, expanded access to educational opportunities, and involvement in affirmative action programs (Costello, Stone, & Dooley, 1996; Frye, 1996) . Women account for more than half of today's labor force and will constitute a large segment of the available management talent to draw on within the next decade (Herz & Wootton, 1996; Powell, 1999; U.S. Bureau of Labor Statistics, 1998). Carnevale and Stone (1995) indicated that by the year 2005, as many as 90 percent of all women between the ages of 25 and 40 will be working. The rising labor force participation of women has been the single biggest change in the American labor market in the past 30 years (Fagenson & Jackson, 1994). The female share of employment has risen from 29% in 1950 to 48% in 1996, and this trend is expected to continue (Blau, Ferber, Winkler, 1998; U.S. Bureau of Labor Statistics, 1998).

For the first time women constitute over half of university-level students. The courses they are enrolled in are increasingly career-oriented. For example, in 1996, women were over 37% of those obtaining MBA degrees and 49% of those enrolled in undergraduate business programs (National Center for Education Statistics, 1998). Over the past decade, the increase in the number of women graduating from leading universities has been much greater than the increase in the total number of graduates, and these women are well represented in the top 10 percent of their classes. (Costello & Krimgold, 1996; Schwartz, 1989). In 1996 women outnumbered men among the recipients of postsecondary degrees at every level, except the doctoral level (National Center for Education Statistics, 1998).

Despite increasing numbers of women in the workforce and in business, and their enhanced educational credentials, women's access to senior level management positions remain limited. (Fierman, 1990; Korn/Ferry International, 1993; Morrison, 1992; Powell, 1999). While women's numbers in management are increasing, they are still largely clustered in lower and, to a lesser extent, middle level management positions (Fagenson & Jackson, 1994). Women's progression to upper management levels has been very slow, currently representing only 5% of senior level executives (Korn/Ferry International, 1993; Powell, 1999)

Mentoring relationships have been found to be significant in the career development, advancement, organizational success, and job satisfaction of women managers (Corzine, Buntzman, & Busch, 1994; Dreher & Ash, 1990; Fagenson, 1989; Scandura, 1992; Schaubroeck, Cotton, Jennings, 1989; Wentling, 1996). Research shows that people who have mentors secure more promotions, have greater job mobility, recognition, satisfaction, and easier access to powerful individuals in the organization (Dreher & Ash, 1990; Fagenson, 1989; Jeruchim & Shapiro, 1992; Ragins & Cotton, 1991). A study of 205 working women found that mentored middle level managers were promoted an average of 2.3 times in a five-year period. Those who were not mentored averaged 1.7 promotions during that time period ("Mentors Big," 1994). Although mentoring relationships are important for all organizational members, they may be particularly important for women (Burke & McKeen, 1990; Noe, 1988; Ragins, 1989). Mentors can help women overcome barriers to advancement in organization (Morrison, 1992).

This suggest that advancement to powerful positions in organizations may be partially based upon the

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successful development of mentoring relationships. Nevertheless, mentoring is an important training and development tool for upward professional progression in organizations for women managers. Mentors for the purpose of this study has been defined as higher ranking, influential, senior organizational members with advanced experience and knowledge who are committed to providing upward mobility and support to a protégé's professional career (Flanders, 1994; Kram, 1988). Mentoring can be either formal , that is, part of the formal organizational *policy, or informal, a private arrangement between two individuals which does not necessarily have organizational* approval (Davidson & Cooper, 1992).

Is a mentor a necessary ingredient for the career advancement of women managers? What are the characteristics mentors should possess in order to provide worthwhile and valuable assistance to those women managers aspiring advancement in their careers? What functions that mentors perform are most likely to enhance the career development of the women managers? These are some of the questions that guided this study. The literature offers much speculation concerning mentors functions and characteristics, but there is a lack of empirical research to verify these conclusions. This study was designed to contribute further knowledge in this area by determining the functions that mentors perform that assist in the career development of women managers. Career development for the purpose of this study was defined as the series of positions held over time and the factors influencing an individual's advancement through those positions (Peterson, Sampson, Reardon, & Lenz, 1996). Investigation in this area will assist aspiring women managers who seek help in career development and advancement.

Purpose of the Study

The purpose of this study was to investigate whether women managers had mentors and how the mentors assisted them in their career development. Specifically, this study addressed the following five research questions:

1. Have the women managers had mentors in their professional careers?
2. How were the mentor relationships established?
3. What are the functions performed by mentors that most effectively assist the career development of women managers?
4. What are the most beneficial lessons that the women managers learned from their mentors?
5. What are the major obstacles that were encountered during mentoring relationships?

Methodology

The major method of this research study was a series the individual case studies. Case studies that relied on face-to-face interviews with a sample of women middle managers were conducted by the researcher. Middle manager for the purpose of this study is defined as, "the group of managers extending from top management down to those immediately above first-line management. They implement the strategies or policies set by top managers and coordinate the work of lower-level managers" (Van Fleet, 1988, p. 33). The case studies required the collection of extensive data in order to produce an in-depth understanding of the role of mentoring in the career development of the women managers who were being studied.

An interview guide was developed to assist in collecting the data from the interviews. A study advisory committee, made up of three business educators and three people from business and industry, reviewed the interview guide and study procedures. Also, a pilot study, involving a sample of five women in middle-level management positions in business firms, was conducted to determine content validity and appropriateness of the interview guide. There was agreement by the study's advisory committee and the pilot test participants that the interview guide and the data being collected were appropriate for meeting the objectives of the study.

The researcher conducted in-person interviews with 30 women in middle-level management positions in 15 Fortune 500 companies. The companies were located in the midwest (Illinois, Missouri, and Indiana).

After reviewing the total number of Fortune 500 companies in the state of Illinois (50), Missouri (15), and Indiana (8), a proportional sample was randomly selected to reflect the number of companies in each of the states. A total of 15 companies were randomly selected, 10 from Illinois, 3 from Missouri, and 2 from Indiana.

The Placement Service Office at mid-west university was then contacted to assist in identifying the campus recruitment person for each of the companies. The campus recruitment person from each of the fifteen Fortune 500 companies was then contacted by telephone and was asked to assist in identifying two women in middle-level management positions in the company. Names, position titles, and telephone numbers of thirty women managers were then obtained. Initial contacts with the women managers were made over the telephone at which time dates, interview appointments, and arrangements were made. All thirty women managers who were contacted consented to participate in the study.

Each interviewee received a letter confirming the interview appointment and a copy of the interview guide two weeks before the scheduled interview. The participants were able to examine the research questions prior to the interview. The interviews were conducted on-site in each participant's corporate office. During the interview, the researcher used the guide to focus the interview process. Flexibility was retained to probe into each participant's statements and replies and to pursue additional issues related to the focus of the study that were not included in the interview guide. The interviews focused on mentors and their role in the career development of the women managers. The interviews lasted from one and a half to two and a half hours, with an average of two hours. The interviewer/researcher took extensive shorthand notes during each interview, then the notes where transcribed after each interview.

Description of Study Participants

Thirty middle-level women managers who worked in Fortune 500 companies located in the mid-west were interviewed. They worked in industrial corporations with sales varying from $500 million to more than $20 billion, with assets from $600 million to more than $24 billion. The average number of employees in these companies is 35,000. The study participants are employed in a variety of industries including aerospace, chemicals, computer, electronics, food, petroleum refining, industrial and farm equipment, pharmaceutical, and publishing/printing.

The women managers range in age from 30 to 46 years, with an average age of 38.2 years. They hold positions in a variety of departmental areas including: human resources, management information systems, finance, marketing, accounting, engineering, and research.

The number of years of work experience acquired by participants range from 8 to 25 years, with an average of 15.1 years. The number of years of managerial experience (including all levels of management experience) that participants have had range from 3 to 17 years, with an average of 7.6 years of managerial experience. The number of years of experience that participants have had as middle managers range from 1 to 10 years, with an average of 4.5 years. The number of years that participants have been employed with their present company range from 1 to 22 years, with an average of 12.0 years. The number of years that it took participants to attain a middle level management position ranges from 1 to 20 years, with an average of 10.0 years.

Results

The results of this study are summarized in five major sections, which parallel the major research questions: (a) women managers' mentors; (b) how mentor relationships were established; (c) functions performed by mentors that most effectively assist the career development of women managers; (d) most beneficial lessons women managers learned from mentors; and (e) obstacles encountered during mentoring relationship.

Women Managers' Mentors

Twenty-seven (90%) of the women managers in the study indicated having one or more mentors during their professional careers. Three (10%) of the women managers indicated that they had not had mentors during their professional careers. Of the 27 women managers who indicated having mentors, 18 (67%) had only male mentors; while eight (30%) had male and female mentors. It is significant to note that only one study participant had had only female mentors. Most often it was a boss or a top manager that served as a mentor for these women. It is also interesting to note that of the 54 mentors identified, 45 (83%) were male and only 9 (17%) were female. Five (19%) of the women managers had had only one mentor; 17 (63%) had had two mentors; two (7%) had had three mentors; and 3 (11%) had had more than three mentors. It is important to note that more than three-quarters of the women managers had had more than one mentor.

How Mentor Relationships Were Established

Fifteen (56%) of the study participants indicated that their mentoring relationship was initiated mutually. Six (22%) indicated their mentoring relationship was initiated through their company's formal mentoring programs, while 3 (11%) had initiated the relationship themselves, and another 3 (11%) indicated that top management had initiated the mentoring relationship. Length of mentor relationships ranged from one to ten years, with an average of 4.5 years.

The study participants most frequently named commitment and dedication, hard work, demonstrated competency on the job (produced high quality work), leadership abilities, positive attitude, and self-confidence as the six most important factors that helped them gain a mentor.

Being an influential leader and willing to share knowledge and expertise were the characteristics the women managers most often wanted in their mentors. Other important attributes were: interest in the women manager's growth and development; willing to commit the time and energy required for the mentoring process/relationship; having established credibility and respect within the company; and possessing high standards of integrity and trustworthiness.

Functions Performed by Mentors that Most Effectively Assist the Career Development of Women Managers

Although a few women managers reported that they received an array of benefits from a single mentor, most of the women managers came to rely on several mentors, each for a different sort of help. The women managers indicated that their mentors were good role models, advocates, or instructors. A variety of functions were performed by mentor that assisted the women managers' career development, as illustrated by Table 1. The seven most frequently cited functions performed by mentors included the following: Provided them with job opportunities/challenges to demonstrate their skills and abilities, 20 (74%); offered them feedback on their performance, 19 (70%); gave them useful advice, 17 (63%); shared his/her expertise with them, 16 (59%);

Table 1. Functions Performed By Mentors That Assisted Women Managers' Career Development (n=27)

Function	(f)	(%)
1. Provided me with job opportunities/ challenges to demonstrate my skills and abilities.	(20)	74
2. Offered me feedback on my performance.	(19)	70
3. Gave me useful advice.	(17)	63
4. Shared his/her expertise with me.	(16)	59
5. Encouraged me to meet high performance standards.	(15)	56
6. Acknowledged my skills and talents and encouraged my career development.	(15)	56
7. Suggested strategies for advancing my career.	(15)	56
8. Demonstrated a belief in me.	(14)	52
9. Served as a role model for me.	(14)	52
10. Helped me gain a greater sense of self-confidence.	(12)	44
11. Assisted me in developing new skills and abilities.	(12)	44
12. Instructed me on organizational norms and politics.	(12)	44
13. Provided me with valuable "inside" information.	(11)	41
14. Recommended me for more responsible positions.	(11)	41
15. Assisted me with making professional contacts.	(10)	37
16. Encouraged me to take risks.	(10)	37
17. Advocated for me with others.	(9)	33
18. Provided me with access to important/influential people.	(9)	33
19. Oriented me to my job/profession.	(8)	30
20. Provided me with personal support and encouragement.	(8)	30
21. Praised my potential to others.	(7)	26
22. Passed along information about career opportunities.	(7)	26
23. Instructed me on how the company functions and its organizational structure.	(5)	19
24. Nominated/appointed me to important committees/boards/task forces.	(4)	15
25. Served as a "sounding board."	(3)	11

Multiple responses were accepted.

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encouraged them to meet high performance standards, 15 (56%); acknowledged their skills and talents and encouraged their career development, 15 (56%); and suggested strategies for advancing their careers, 15 (56%).

The majority (90%) of the women managers indicated that their mentors were the people they considered to have most significantly influenced their career development. They reported that their mentors had provided them with substantial help, which had assisted them in their career progression, and in more effectively dealing with barriers they encountered.

Most Beneficial Lessons Women Managers Learned From Mentors

The women managers reported a variety of lessons that they learned from their mentors. The ten most frequently cited lessons that they learned from their mentors that were most beneficial to their career development included the following: The importance of setting priorities and how to approach problems in a systematic way, 19 (70%); to deal and work with people from different backgrounds, level, and experiences to get things accomplished, 17 (63%); to be more adaptable and flexible, 15 (56%); to be more visionary and to be a better planner and organizer, 14 (52%); to manage and develop a team/group of people and how to pull together everyone's knowledge and skills to accomplish a task; 13 (48%); to work and deal with difficult people and make the best of every situation, 12 (44%); to be diplomatic and to negotiate more effectively, 11 (41%); to take risks and diversify their work experiences, 10 (37%); the importance of accuracy and high performance standards, 9 (33%); and how to modify behavior under certain circumstances and relate better to all types of people, 8 (30%).

The majority of the women believed that without the lessons learned from their mentors their career progression may have been hindered or made considerably more difficult. It is interesting to note that the majority of the lessons that the women managers learned from their mentors that were most beneficial to their career development were related to enhancing their interpersonal/people skills.

Obstacles Encountered During Mentoring Relationship

Although the women managers have received numerous benefits from their mentors, the majority 17 (63%) had encountered obstacles during their mentoring relationships. The following eight obstacles were mentioned by the women managers: Stayed with one mentor too long, 7 (41%); became too dependent on mentor and could not function properly without his/her support, 5 (29%); mentor did not have sufficient time to spend with me, 4 (24%); mentor was threatened by my talents and accomplishments, 3 (18%); mentor blocked my advancement because of a desire to retain my relationship and services, 3 (18%); jealous spouse created problems, 2 (12%); resentful co-workers created problems, 2 (12%); and mentor was not liked by senior management, 2 (12%).

All the women managers who had encountered obstacles agreed that the professional gains from mentors exceed the obstacles that they encountered during a mentoring relationship.

Discussion

The results of this study support other studies which indicate that functions performed by mentors are essential in the career development and progression of women managers in organizations (Burke & McKeen, 1994; Jeruchim & Shapiro, 1992; Morrison, 1992; Ragins & Scandura, 1994).

The results of this study clearly demonstrate that career development help does not come from only one mentor, but instead comes from many different mentors. Shapiro and Farrow (1988) suggest that it is more advantageous for women to seek help from a variety of mentors rather than from only one. Having multiple mentors may be a way for women managers to avoid the obstacles encounter during mentoring relationships. Some of the major obstacles mentioned by the women managers in this study were staying with one mentor too long, becoming too dependent on the mentor, and mentor not having sufficient time to spend on the relationship. The aspiring women manager can reduce the adversity of each of these problems, if she has more than one mentor. Having more than one mentor reduces the chances of staying with one mentor too long or becoming too dependent upon any one of them. Davidson and Cooper (1992) warn women managers not to expect a mentor to guide their careers forever, or to learn everything from a single mentor. To the extent that one has many mentors, the less time demands will be required from any one mentor, since there are others they can go to for assistance. In addition, the woman manager spending less time with any one mentor may also reduce the amount of gossip about the relationship, and the mentor spending less time with any one employee should reduce resentment from other employees. Hardesty and Jacobs

(1987) caution women against becoming overly dependent on one mentor, especially in later career stages. They speculate that women's desire for connectedness and personal bonds lead to this overdependence.

Eighty-three percent of the individuals that served as mentors for the women in this study were men. Many authors have reported a shortage of female mentors (Morrison, 1992; Noe, 1998; Parker & Kram, 1993; Powell, 1999; Ragins, 1989). Since mentors are usually defined as high-ranking, influential member of an organization, the lack of women at high levels may certainly be one reason for the lack of female mentors (Noe, 1988; Ragins, 1989). According to Ragins and Cotton (1998), the shortage of women at upper levels of organizations creates a lack of potential female mentors, and the women in management who are available to form mentoring relationships are overburdened with requests from the large number of women at lower levels. This means like the women in this study, they usually have to approach men for mentor relationships.

The results of this study seem to indicate that increasing the access of women to successful mentoring relationships may not only assist in their career development, but also improve their organizational effectiveness. Therefore, it may be in the organization's best interest to provide mentoring opportunities for women managers. Organizations can create conditions to encourage mentoring. For example, they can increase the formal and informal opportunities for women to meet potential mentors. Organizations may sponsor various events, such as networking luncheons and weekend retreats. By sponsoring these types of programs, the company can encourage social interaction between the potential mentors and the women who need mentors. In addition, organizations can promote the development of mentors for women by formally recognizing mentoring activities in performance appraisals and salary decisions. Also, women managers who have attained mentors successfully could share their strategies for finding a mentor, obstacles they encountered in their mentoring relationships and how to address them, and the benefits of having a mentors with women managers who currently need mentors. Overall, company leaders can promote the development of mentors by communicating the organizational and individual benefits of mentoring throughout the company.

Recently, recognition of mentoring as a management technique and career development method has been adopted by many companies (Flanders, 1994; Simonetti, Ariss, & Martinez, 1999). For example, McDonnell Douglas has a policy called "Career Counseling and Mentoring". The objective of this policy is to "enable people to contribute fully over the course of their careers, by providing periodic formal reviews of their individual career objectives and by providing informal mentoring support. The policy describes mentoring as a two-way process that is important to career development" (Geiger, 1994, p. 65). Every employee is encouraged to be a mentor and to have one or more mentors.

In summary, this study adds to current knowledge by demonstrating the assistance in career development that is available for women managers from mentors, as well as the obstacles they may encounter in mentoring relationships. This study found that being mentored was advantageous to the career development of women managers. Mentoring is one way that companies can provide better opportunity for the advancement of women managers. It can also assist in assuring that organizations do not lose or underutilize the talents of the capable and educated women who now comprise a significant and vital portion of the workforce. Businesses today need all the leadership, expertise, and creativity possible as they face worldwide competition.

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Analyzing and Solving Difficulties Experienced in Knowledge Management: The Case of a Knowledge Intensive Organization

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Knowledge management has become an important tool in staying ahead in the competition between companies. In this paper five different phases of the knowledge management process are distinguished. The occurrence of knowledge management problems has been studied in a case study in a knowledge intensive company. Most of the problems in this case occur in the first three phases of the knowledge management process: knowledge acquisition, knowledge codification and knowledge dissemination.

Key words: Knowledge Management, Knowledge Acquisition, Knowledge Codification, Knowledge Dissemination

In our time we live in a "knowledge society" in which knowledge is the most important means of production and not capital, raw materials or labour (Drucker, 1993). Growth of the service sector, automation, the development of new (information)technology, changes in structures and work processes of companies and globalisation and as a consequence growing competition are a few causes for this development (Castells, 1996; Rifkin, 1995, 2000; Zolingen, 1995). In a society based on knowledge, says Drucker, the knowledge worker is the single greatest asset. But survival and innovation of companies is nowadays not only dependent on the knowledge they have but on the creativity with which they apply knowledge upon knowledge (Weggeman, 1997, 2000). Knowledge can provide a sustainable advantage. According to Davenport & Prusak (1998): "Eventually competitors can almost always match the quality and price of a market leaders' current product or service. By the time that happens though, the knowledge rich, knowledge-managing company will have moved on to a new level of quality, creativity, or efficiency. The knowledge advantage is sustainable because it generates increasing returns and continuing advantages. Unlike material assets, which decrease as they are used, knowledge assets increase with use: ideas breed new ideas and shared knowledge stays with the giver while it enriches the receiver. The potential of new ideas arising from the stock of knowledge in any firm is practically limitless - particularly if the people in the firm are given opportunities to think, to learn, and to talk with another" (p 17). This is why knowledge management has become very important for companies. Further the growing interest in knowledge management is closely related to companies' efforts to become learning organizations, in which managers strive to create a culture and a system for creating new knowledge and for capturing knowledge and getting it to the right place at the right time (Senge, 1990; Watkins & Marsick, 1993; Marsick & Watkins, 1999). Knowledge management aims to make knowledge explicit, codifies knowledge and experiences and develops knowledge that is essential for the realisation of the core competencies of a company (Davenport & Prusak, 1998). In this paper we pay attention to questions such as: what is knowledge, who uses it, where is it, how do you create it, how do organizations store it, what is knowledge management and what problems do organizations have with knowledge management?

Theoretical Background

Data, Information, Knowledge and Knowledge Management. When one talks about knowledge, the question arises how the difference between knowledge, information and data can be interpreted. Davenport & Prusak (1998) say: "data is a set of discrete, objective facts about events" (p. 2) and Peter Drucker (in Davenport & Prusak, 1998) once said that information is "data endowed with relevance and purpose". Information comes into being when somebody attributes meaning to data. When that person communicates that meaning, from his point of view information is being transmitted. Davenport & Prusak (1998) say, "data becomes information when its creator adds meaning" (p 4). One talks about knowledge when information has acquired a place in the reference framework of the user and the user connects this with his own actions. Davenport & Prusak (1998) say about knowledge: "Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the mind of those who know. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms" (p 5). Davenport & Prusak describe knowledge as a socially constructed reality, influenced by personal beliefs and values, forged in the rhythms of daily work, and visible in a company's products and services. Knowledge is complex because it is personalised. This makes it hard to standardise and to share effectively with others.

Knowledge management is about knowledge creation. Marsick & Watkins (1999) say "Its focus is releasing creativity and invention in people, who in turn can use what they know to develop the capacity of people, improve practices and processes,

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and develop better products to serve the customer (p. 82).

In this paper knowledge management is being described as: *listing the knowledge needs by examining what knowledge does an organization need and what knowledge is available among its employees. Knowledge management aims at systematically reducing the discrepancy between desired and available knowledge by acquiring, codifying, disseminating, developing and applying knowledge according to policy and plan on behalf of the strategic objectives of an organization.*

Knowledge Management as Process. Sprenger (1995), Diepstraten (1996) Van der Spek and Spijkervet (1996),Weggemans (1997) all distinguish several phases of knowledge mangement process. Van der Spek and Spijkervet for example mention four phases in the knowledge management process: 1) New knowledge is being developed; 2) Knowledge is being distributed to those who need this knowledge in order to be able to execute their tasks well; 3) Knowledge is being made accessible for future use, also for the collective; 4) Knowledge fields are being combined.

From the foregoing it appears that various possibilities exist to describe the phases within the knowledge management process. In this research knowledge management is being characterised as a cyclical process consisting of five phases: Acquiring knowledge; codifying knowledge; dissemination of knowledge; developing knowledge and applying knowledge. Acquiring knowledge means incorporating new knowledge in the organization. For this only the strategic knowledge is important because it contributes to the execution of core activities and the development of the core competencies of the organization. Codifying knowledge means making knowledge explicit and making it accessible so that, if desired, other persons can acquire this knowledge at an arbitrary moment at an arbitrary place. The third phase of the knowledge management process is made up of the dissemination of knowledge to those for whom it is important for the execution of their tasks. In the fourth phase knowledge is being developed by means of existing knowledge. By combining elements of existing knowledge, new insights can be formed and thus new knowledge can be developed. The fifth phase of the knowledge-management process is the application of (newly developed) knowledge. This means that knowledge is being used on behalf of the organization.

Organizational Factors Influencing the Knowledge Management Process. Organization characteristics such as structure, culture, and strategy, and next to that knowledge systems, influence the progress of the knowledge management - process. There exists a diversity of opinions about the ideal organization structure for the promotion of the process of knowledge management. Nonaka, & Takeuchi (1995) take the view that the hypertext organization has the ideal structure to promote knowledge creation. The hypertext organization is made up of three interconnected layers or contexts: the business system, the project team and the knowledge base. According to Nonaka, & Takeuchi (1995) "the central layer is the business-system layer in which normal, routine operations are carried out. Since a bureaucratic structure is suitable for conducting routine work efficiently, this layer is shaped like a hierarchical pyramid. The top layer is the project-team layer where multiple project-teams engage in knowledge creating activities such as new product development. The team members are brought together from a number of different units across the business system, and are assigned exclusively to a project team until the project is completed. At the bottom is the knowledge-base layer where organizational knowledge generated in the above two layers is recategorised and recontextualised. This layer does not exist as an actual organizational entity, but is embedded in corporate vision, organizational culture, or technology. Corporate vision provides the direction in which the company should develop technology or products, and clarifies the 'field' in which it wants to play. Organizational culture orients the mindset and action of every employee. While corporate vision and organizational culture provide the knowledge base to tap tacit knowledge, technology taps the explicit knowledge generated in the two other layers (p. 167). And 'The key characteristic of the hypertext organization is the ability of its members to shift contexts. They can move among three contexts in order to accommodate the changing requirements of situations both inside and outside the organization" (169). This ability offers the organization great flexibility. In the hypertext organization the efficiency and stability of the bureaucracy is combined with the effectiveness and dynamism of the task force.

Several authors (Bertrams (1999; Marsick & Watkins, 1999; Ostroff, 1999; Watkins & Marsick, 1993) take the view that in order to create good conditions for the process of knowledge management it is best for an organization to switch from the widespread hierarchical task-oriented structure consisting of many layers to the much flatter horizontal or network structure. This process of decentralisation can extend over a group of businesses. Bertrams characterises the network organization as follows: "A network organization is a group of businesses usually supplying the same market or specific target group, and by means of working together they try to use each other's strong points. With this it is important that various businesses actively work together in the exchange of clients and the offering of overall solutions" (p. 126,127). According to Bertrams (1999), within the structure of an organization communication along short communication lines, employing language comprehensible for everybody in the organization, good communication between the various departments because there is no competition and correct and easily accessible information about professionals and departments are essential requirements for the good progress of the process of knowledge management. Watkins & Marsick (1993) mention the importance of "a culture that is learning oriented, with beliefs, values, and policies that support learning; for example, tolerance for mistakes as opportunities for learning and problem solving; and policies that reward knowledge and the sharing of knowledge as well as rewards for performance"(p. 166). Davenport & Prusak (1998) say that these policies underline the value attached to sharing knowledge in the organization and that this motivates employees to share knowledge. The trust employees have in their organization is also essential for knowledge sharing (Watkins & Marsick, 1993). Davenport & Prusak (1998) say that trust must be visible (see people get credit for knowledge sharing) and trustworthiness must start at the top (if the top managers are trustworthy, trust will seep through and come to characterise the whole firm). These authors also point out the importance of providing time for learning and reflection. Factors from the culture of the organization strongly influencing the motivation for learning and giving feedback are, according to Bertrams (1999): feedback (what happens with my knowledge), the diversity of skills (do I get the chance to use that which I am learning), the recognisability of the task (does that which I am learning supply an added value to my ambition), the importance of the task (do I help the organization with my behaviour) and autonomy (do I get enough freedom to learn). Next to that it is important that an organization rewards the correct behaviour. Not the amount of the knowledge a professional gives feedback upon must be a criterion, but the extent to which his feedback knowledge is being used.

Bertrams (1999) distinguishes two types of organizational cultures that can facilitate knowledge management: the enterprising culture and the group culture. Bertram says "An enterprising culture characterises organizations taking a great extent of risk, dealing with a dynamic and complex environment, highly valueing creativity. Innovation, individual initiative and independence make up the standard. This is also the culture with which many businesses will identify themselves. Recruitment ads of almost all businesses will characterise their own organization with the described terms and will ask for professionals meeting those characteristics: enterprising, creative and full of initiative. Professionals in this organization want to score quickly and to climb at a high speed, their goal is to be able to start leading quickly, to get responsibility and finally to join the top of the organization. A group culture is characterised by tradition, loyalty, socialisation, lots of teamwork and social control. People enter into a long-lasting association with each other and they feel socially strongly connected. Although the organization aims at a good turnover, working together with each other in interesting fields gets priority. Communication, coordination and integration take place on the basis of shared goals. Innovation is possible in this organization but strongly depends on the standards in the organization. Because on the whole they are more aiming at the inside than at the outside not much external knowledge is brought inside" (Bertrams, p. 142). Bertrams (1999) takes the view that knowledge management stands the best chance in a mixture of an enterprising culture and a group culture.

Next to a certain structure and culture a strategy aimed at knowledge with a clear and detailed knowledge policy (Bertrams, 1999) aimed at innovation and learning (Watkins & Marsick, 1993) is essential for organization for their survival. Customer-orientation, product leadership or cost leadership, all three require a well running knowledge management process. Versatile and actual knowledge about the customer and his needs, good service and training when the products have been delivered and lasting contacts with the customer require that an organization must become a part of its environment. That environment must be mainly seen as the customers and suppliers of the organization. Knowledge coming from the environment must be easily picked up within the organization to be incorporated in the products and the services. Bertrams (1999) terms this a transition from internal to external orientation of organizations. Furthermore, the accessibility, the content and the feedback possibilities of the (electronic) knowledge systems of an organization influence the process of knowledge management (Stewart, 1997).

Research Question

At the moment the process of knowledge management receives much attention, but there has hardly been research into it. This is important because organizations, despite much good will, do not really know what they must do with knowledge management in real terms. Therefore, in this paper the following research theme is being explored: Knowledge intensive organizations experience difficulties in handling knowledge management. With which problems in the field of knowledge management are these organization being confronted? How do these organization handle these problems? And what recommendations can be made to prevent and solve problems in the field of knowledge management?

Methodology

Selection Case/Respondents/Functions. We have chosen to perform the research in knowledge intensive organizations employing professionals, because the acquiring, codifying, dissemination, development and application of knowledge is especially for these organizations of vital importance. For these organizations handling knowledge management well is essentially important for their survival. At the same time, professionals are the ones who find it hardest to share their knowledge. For they derive their value from the knowledge they 'possess'.

Three organizations from a list of customers of a commercial consultancy for organization changes and management development were approached. All three organizations participated in the research project. The three participating organizations can be typified as customer oriented knowledge intensive organizations, also labeled as 'heavy knowledge intensive organizations'. With these organizations the dominant influence on the functioning of the organizations is being exerted by the employees and the - direct - output is in the form of software, reports, drawings, formulas, programs and the like (Weggeman, 1997). In this paper only the research results of the organization with a prominent position in the field of automation are included because this organization is in a stable phase and has reasonable experience in the field of knowledge management. At the second company the process of knowledge management was being disturbed because this company was merging with another company and the third company was still in a starting up phase and consequently did not pay structured attention to knowledge management. In the case study applied in this study four respondents were involved, with the following jobs: the executive manager, the service line manager consultant (a specialist in the field of documentation); the knowledge manager and a (female) employee of the communication department. This organization will be referred to in this paper as ICT Ltd.

Procedure and Instruments. The data collection was being executed with a questionnaire followed by half structured interviews, going deeper into the subjects most relevant for this organization. The aim of the questionnaire was to get a quick image of that what is taking place in the organization in the field of knowledge management. Next to that the questionnaire served as preparation for the interviews. The questionnaire was filled in by four persons with diverse functions. The questionnaire contained 59 items. The literature was directive in the realization of the items. Each item represented a bottleneck in the field of knowledge management distinguished in the literature The items were formulated in the form of propositions and were measured on a scale of six points with answer categories ranging from complete agreement to complete disagreement. The items were classified on the basis of the phases of the knowledge management process: acquiring knowledge, recording knowledge, dissemination of knowledge, development of knowledge and applying knowledge. Next to that questions were asked about the structure, the culture, the strategy and the knowledge systems of the organization. Next to the written questionnaire half structured interviews were being used. The aim of these interviews was to further examine the most relevant bottlenecks organizations experience in the field of knowledge management. At the same time it was examined which activities are being arranged in organizations to optimalise the process of knowledge management. The subjects in the half-structured interview had been formulated beforehand in a topic-list.

Results

A Large Automation Company. The company is a part of ICT International, one of the biggest automation companies in the Netherlands. It is a combination of ten subsidiaries with their own expertise in their own domains and markets. ICT Ltd. is one of the subsidiaries of ICT International and an information and comunication technology service provider from the very beginning. With its six hundred employees it extends service to the government. Public government is its field of activity. Its orders mostly deal with income processing, benefits, pensions, subsidies, finances, and document management. In the beginning of this year ICT Ltd. has started the project 'Knowledge management ICT Ltd.', because they realized that knowledge is the most important value in the organization.

The Knowledge Management Process at ICT Ltd. In this paragraph the results are structured on the basis of the various phases of the process of knowledge management: acquiring knowledge, codifying knowledge, dissemination of knowledge, development of knowledge and applying knowledge, and subsequently on the basis of the factors of the organization influencing the process of knowledge management: structure, culture, strategy and knowledge systems.

The Different Phases of the Process of Knowledge Management

Acquiring Knowledge. All four respondents experience it as a problem that ICT Ltd. has not or hardly not established which specific knowledge and skills its employees have at their disposal. Because of this it is not clear which knowledge is available within ICT Ltd. At the moment much time is being lost with the searching of the right people with the right qualities. *"You really have to know people to find somebody"*, according to one of the respondents. The fact that ICT Ltd. is a big organization with different branches does not make it any easier. The head of the department covering knowledge management does not think that this is such a determining factor. He said: *"if each department has established in its own way who has which knowledge and skills, then others can also retrieve this quickly with a phone call or an e mail"*. All respondents see a solution for this problem in the form of Purple Pages, which are being organized at holding level. Each respondent takes the view that ICT Ltd. is actively gathering knowledge about the wishes and needs of its clients. According to the managing director this is being done in the form of so-called 'fire place sessions'. During these rather informal meetings different subjects come up, but the outcomes of these meetings are not adequeately being taken up by the organization. Within ICT ltd. BV the account managers only spend one day per week with their (possible) clients. The remaining four days they occupy themselves with internal worries. The respondents see this as a problem because account managers are contracted for the acquisition of new clients and next to that to find out about the wishes and needs of the existing clients and not to solve internal problems. ICT Ltd. offers its employees enough possibilities to learn. However, the management does not stimulate the following of trainings and seminars. Employees themselves have to indicate that they want to follow a certain course or want to attend a seminar. One of the respondents says about this: *"The management never tells you that it might be good to follow a training in this or that field. You really have to explain what purpose it serves for ICT Ltd."*. Thus the following of trainings and seminars takes place on one's own initiative and usually ad hoc. One service line has been given time to assemble the whole department for one day per month. During this meeting experiences are being shared. Sometimes another service line or another subsidiary is being invited to tell about their activities.

Codifying Knowledge. All respondents except one do not know how they can get access to knowledge about activities in the past. Anyway the accessibility of information isn't taken serious, not only the accessibility of knowledge from the past, but also the accessibility of current knowledge. The infrastructure of the Intranet is hampered by the dialectics of progress; it was very modern in the past, now it is outdated and not at all well-tended. The focus is very strongly externally. The internal organization of ICT Ltd., consequently the Intranet also, does not get enough attention. The employee of the department covering knowledge management expresses it as follows: *"It's the same as the house of the painter that is badly in need of paint"*. The Intranet is a possible solution but also informal contacts – acquaintance management – are very important. Employees do not get enough time for this. There is too much a striving for maximum declarations. All respondents are of the opinion that the know-how knowledge, in other words the procedural knowledge, and the know-what knowledge, also called factual knowledge, has been reasonably well or well recorded. However with the procedural knowledge the comment is made that maybe too much is being casted in procedures. *"The advantage of it is that everybody talks the same language, but the disadvantage is that suddenly everything has to be done in procedures. People handle this rather rigidly while the procedures are meant to be flexible"*, according to a respondent. Which know-what knowledge is being recorded differs per service line. Some service lines lay down explicit knowledge about clients and markets, other service lines mainly record knowledge concerning content of projects. This knowledge is only accessible for the employees of the service line in question. The respondents are all of the opinion that within ICT Ltd. much information is already laid down in the form of e mails, letters, faxes, documents and the like. But this information is left lying around the whole organization. *"When this information is being stored and opened up in a structured way, this would be a considerable headway for ICT Ltd. in easily retrieving important information"*, according to the head of the department covering knowledge management. About the stimulation of the management the respondents have different opinions. Two respondents are of the opinion that the management supports them sufficiently to record their knowledge. The other two respondents, one of them the head, say that the management ought to stimulate them more to record subject content knowledge. They are of the opinion that recording knowledge and skills must be extorted by means of a procedure or rule, because some people do not take that responsibility themselves. It is even being suggested to make the recording of knowledge and skills part of the assessment. There is no difference of opinion about the fact that colleagues hardly pay attention whether it is being set out according to which method one works. This is in particular because of the culture of ICT Ltd. There is a very friendly atmosphere, this makes it very difficult to tell each other what could have been done better. The respondents regret this because at the moment ICT Ltd. has a high staff turnover and as a result much knowledge disappears from the organization. One of the respondents also experiences having own storage methods which are inaccessible for others and a lack of a convention about formats, as bottlenecks in the field of the recording of knowledge. There are no rules for assigning a name to a file. *"Most of the time information is being put on one's own laptop computer. There are hardly any common directories. When there are common directories these are only accessible in the office and not when you are at a client's house or at home"*, according to the employee of the department covering knowledge management.

Dissemination of Knowledge. With regards to the dissemination of knowledge the respondents experience only few bottlenecks Much knowledge is being spread by means of the informal circuit. This is being experienced as pleasant, but the corridors also cause much 'noise on the line'. The employee of the department covering knowledge management said about this: *"If there is no communication, people will fill in the dots themselves. If they do no longer know it, they start pointing and usually the general manager is the fall guy"*. The head denominates the informal circuit 'the place where you can do business quickly'. *"It's like 'I am working on this, do you know someone who knows more about it?'"*. According to the respondents the informal circuit has advantages over the formal circuit. It is accessible, 'safe', easy and quick. A disadvantage is that it is more difficult to supervise, to control and to survey than the formal circuit. One respondent is of the opinion that maybe the informal circuit has become so big because of the lack of a good formal circuit. When it is being recorded in a user-friendly accessible system who works on what and who has which knowledge and skills, the informal circuit becomes less vital.

Nearly all respondents experience the fact that within ICT Ltd. much knowledge is inside the heads of the employees as a problem. One respondents does not consider it to be a problem that much knowledge is inside the heads of the employees, but the fact that this knowledge is not recorded is a problem. The head of the department covering knowledge management is of the opinion that *"this implicit knowledge is a fortune, but it would be worth something if ICT Ltd. would be a little less dependent on the physical presence and effort of employees with a lot of implicit knowledge"*. Much personal knowledge is being lost when an employee leaves the organization. It is also difficult to lay down this implicit knowledge in systems. There are different ways to solve this bottleneck. Good facilitation of knowledge management increases the chance that good employees do stay. Because of this the search for relevant information takes less time and projects pass off more efficiently. A good knowledge management system also enlarges the pleasure in one's work. In any case it expels a number of frustrations. A second solution is to link a senior with a junior. But within ICT Ltd. they do not have the nerve to give a senior each week a day off for this. With the issues of the day the external clients take precedence. Too much attention is being paid to the short-term results. The fact that ICT Ltd. is quoted on the stock exchange is being used as an excuse for this. According to the director the implicit knowledge and the experience of the employee who leaves the organization is also being reflected in advice reports and products. According to him there is in this *"an implicit knowledge transfer in the way in which the work has been done. Others can learn from this."*.

Three of the four respondents take the view that sharing knowledge with colleagues strengthens the position in the organization. *"For when you share your own knowledge, you are more likely to get knowledge back from others"*, according to these respondents. Respondent number four states that many employees of ICT Ltd. find the sharing of knowledge with colleagues threatening. He says about this: *"People are afraid to lose prestige when they yield up their knowledge"*.

The fact that employees never change functions is being considered as a bottleneck in the field of the dissemination of knowledge. The respondents agree that function changes do not or hardly ever occur within the company. Function changes are also rather difficult because the roles and tasks of the different employees diverge too much. According to the director: *"It is hardly possible for a programmer to carry out the tasks of an advisor during a month and vice versa"*. However, there are many different projects demanding various skills of the employees. Apart from the exchanges in the projects, within ICT Ltd. one works almost always with interdisciplinary team compositions. The respondents find this very worthwhile, because in this way much knowledge is being disseminated. Next to that because of this new knowledge is being developed since you learn from each other.

Only the director takes the view that the employees of ICT Ltd. provide each other with too little information about work experiences, courses they have taken and/or projects. Good methods within a project are not explicitly registered and disseminated. Sometimes this knowledge is being disseminated in an informal way, for instance in the corridors. One is reasonably open about problems and mistakes. The employee of the department covering knowledge management refutes this. There is more talk about others than with others. More is said about this under the heading 'culture of the organization'.

Development of Knowledge. The head of the department covering knowledge management and also an employee of that department take the view that it happens within the company that the same knowledge is being developed at two different places in the organization. They say that this is caused by lack of information about the activities of colleagues. Both respondents experience this as a problem. It costs time and therefore money. The director of the organization also indicates that indeed it happens once in a while that the same knowledge is being developed at two different places in the organization but he does not consider this to be a problem. About this he says: *"it's better that the same knowledge is being developed at two places in the organization than that this knowledge is not being developed at all. Indeed it's a pity about the time, but in any case the employees have learned"*.

ICT Ltd. has reasonable to good contacts with research institutions. Students frequently do a work placement or their subject for final project at ICT Ltd. Both parties profit from this. In this way both the student and Automatisering BV acquire and develop knowledge.

The respondents all take the view that ICT Ltd. offers them enough room to experiment with, for instance, new working methods. The development of new knowledge is even one of the items of the evaluation. The employee of the department covering knowledge management is of the opinion that within the company the work is primarily done by routine. But according to him this working by routine does not hinder the knowledge management process. *"Certain activities have to be executed by means of certain fixed steps"*, according to this respondent.

Application of Knowledge. According to the respondents new knowledge and/or methods are well applied. Knowledge is being applied with the working for clients, the writing of articles and with internal consultation. For the execution of assignments knowledge acquired earlier is always being used to arrive at new understandings. The respondents do not experience any difficulty with the application of knowledge of colleagues. There is no fear that knowledge of colleagues is of insufficient quality. Everybody takes the view that the application of new knowledge is important. The director says about this: *"there is no culture 'I have always done it this way, it always worked, so why should I change"*. Furthermore, according to the respondents, the employees for whom new developed methods are intended are sufficiently involved in this development.

Organizational Factors Influencing the Knowledge Management Process

Structure of the Organization. The opinions about the length of the communication lines of ICT Ltd. differ. Only the head of the department covering knowledge management says that the communication lines are short. *"A culture of calling very quickly and walking into each other's room when you have a question is prevalent"* according to the respondent. The communication lines to the management and the board could be shorter. The other three respondents share this view and experience it as a problem. Because of this the knowledge feedback is slower. In general employees find it difficult to walk into the room of the director. On the other hand the director is of the opinion that: *"If I get an e-mail message or a phone call from an employee, I answer it the same day. Sometimes I do not succeed in answering it the same day, but then I always inform the person in question about this".* The director also gives the following example that aptly expresses the situation with regards to this: *"I heard from a colleague that person X wanted to ask me a question about a certain subject. He did not dare to call me, so my colleague advised him to send me an e-mail. It took a week before he had summoned up his courage to send me a mail message. I replied the same day, and he was so amazed that he went to my colleague to tell this remarkable news".*

The same respondent who takes the view that the communication lines of ICT Ltd. are short, also says that the staff turnover within the company is relatively small, anyway when you compare it with the holding. The other three respondents take an opposite view. All three experience the big staff turnover as a problem. It happens regularly that employees with unique knowledge and experience, which in most cases has not been recorded, leave the company. According to the employee of the department covering knowledge management, the most important cause of this is the fact that employees are being hindered in executing their work properly. Too many internal matters have to be solved by the employees themselves.

Discussions of progress are regular agenda items according to the respondents. The employee of the department covering knowledge management takes the view that during meetings too much time is being spent on discussions of progress. He says about this: *"let's stop that nattering and get to work!".*

Culture of the Organization. According to the respondents the emphasis is mainly on the short-term results. This is so because ICT Ltd. is an organization quoted on the stock exchange. *"Now and then you have to show quick wins, because otherwise you will not get any room to go on"*, according to a respondent. This short-term thinking adversely interferes with the process of knowledge management. Because of this one handles knowledge pragmatically. The result of knowledge management only becomes visible in the long-term, because of this it is difficult to indicate how much benefit one derives from an investment, for instance a database.

Three respondents take the view that within ICT Ltd. one can openly talk about mistakes and insecurities. Only the employee of the department covering knowledge management disagrees. They look at your mistakes when you are being squared up. In case of a mistake it is like 'what a failure' instead of 'I learned something from that'. One of the causes of this can be the fact that the company from way back stems from a government culture. The respondent is of the opinion that this bottleneck enormously obstructs the knowledge management process. *"When there is no willingness to learn from one's own mistakes, possible other points of improvement are also not being passed on to others. Next to that within ICT Ltd. knowledge is still often considered to be power, because of this employees are often not willing to openly share knowledge at tactical and strategical level"*, according to this respondent.

About the question whether the management of ICT Ltd. gives the good example with regards to knowledge management, the opinions are divided. The director and the head of the department covering knowledge management take the view that the management not only promotes knowledge management but that it also applies knowledge management reasonably well. The other two respondents are of the opinion that more stimulation from the management is necessary.

Strategy of the Organization. All respondents agree, indeed to a greater or lesser degree, that knowledge management is a part of the strategic policy of the company. The respondents experience this as being important. In this way employees get the feeling that knowledge management takes priority. This can also be realized by incorporating knowledge management in the objectives of ICT Ltd. Because of this, employees are more inclined to acquire knowledge, to record, to disseminate, develop and apply it. Having a knowledge policy, describing how the phases of the management process can be interpreted, is considered to be less important.

The employee of the department covering knowledge management indicates that strategy is something very nice but it has to be converted into decisiveness. It not infrequently happens that ICT Ltd. is lacking in decisiveness. There is much talk, much is being written down, all kinds of plans are being made, but subsequently nothing is done with it. Employees themselves do no longer expect that the plans will be put into action. The decision-making is very slow as a result of the reigning hierarchy. Almost all decisions are being made by the general manager. As project manager you hardly have any elbow room.

Knowledge Systems of the Organization. Different service lines have their own knowledge system, mainly in the form of an Intranet, but the cohesion and the integral accessibility leave something to be desired. In most cases only employees of the different service lines have access to the knowledge system of their own service line. Next to that ICT Ltd. has an intranet exceeding the organization. Two of the four respondents, one of them the employee of the department covering knowledge management, take the view that this Intranet is not up-to-date and access is difficult. Next to that feedback of information takes a lot of time, because of this it often does not take place. One of the respondents describes the state of the Intranet as follows: *"nothing at all happens on that Intranet, nobody looks at it, and if you do take the trouble to have a look at it you find dead links and references to people who no longer work for us, and in a few cases to someone who has already died".* An outdated version of Microsoft Office is being used. This makes the exchange of data difficult: not only with customers but also with sister companies, because the sister companies do not use the same standards.

Too often one thinks that a knowledge system is the solution for many problems. So for each problem a new system is being bought. One often forgets that knowledge management is more than an Intranet. The human factor, for example in the form of a knowledge broker is often forgotten. The head of the department covering knowledge management says about this: *"when I have a problem in the issues of the day, my first thought is 'who can help me with this' and then I make one or two phone calls. Only when I do not succeed I'll start looking in systems."*

Within ICT Ltd. mail facilities are being used a lot. In that Internet certainly has a value.

Conclusion and Discussion

About the phase of knowledge acquisition three employees say that they have not enough time for knowledge acquisition and sharing. The management team of ICT Ltd. does not make time for the evaluation of projects, for knowledge exchange meetings, for writing short reports or giving short presentations about an attended course. Yet the director takes the view that he does stimulate his employees with regards to these points. It seems advisable to create more time for above mentioned activities.

There is no good insight into where knowledge is located in ICT Ltd.. Nothing has been recorded about which specific knowledge and skills the different professionals have at their disposal. Because of this, it takes a lot of time to find the right employee with the right qualities. Both Bertrams (1999) and Davenport & Prusak (1998) mention this problem. According to Davenport & Prusak (1998) knowledge mapping can be helpful to improve the matching of knowledge with people. The respondents mention this solution themselves. They consider Purple Pages to be a solution for this. In these it is being recorded which competencies each employee has at its disposal, in which projects he or she has participated and at which projects he or she is working now. ICT Ltd. does register what the market asks.

All the time and in different ways (formally and informally) knowledge about the needs of the clients is actively being gathered. It is remarkable that the respondents take the view that no active knowledge policy based on these data is being pursued.

The respondents are of the opinion that the management does not provide enough stimulation for attending courses or a seminar. They do remark that during projects much is being learned. It seems that these professionals do not know what they must learn. This problem is being mentioned by Bertrams (1999) and he takes the view that there is a danger that because of this, the motivation to learn decreases. Bertrams (1999) comes out with a solution: goal-oriented career planning and learning based on a good picture of the knowledge an employee ought to have at his disposal according to ICT Ltd. in order to be able to rise to a desired position and an intended competence level.

There is also dissatisfaction about the phase of codification. Three employees say that they have not enough time to codify knowledge. Moreover, access to knowledge and information is difficult at ICT Ltd. and to the extent knowledge is being recorded, it is not being kept up-to-date. Furthermore, employees are not being stimulated to lay down knowledge. It seems advisable that ICT Ltd. in the near future critically revises its use of information technology systems and decides which systems such as internet, EDI, intranet, MID, DSS, ERP and mechanisms such as data warehousing, data mining, knowledge mapping, electronic libraries, are most usefull for the exchange of knowledge in ICT Ltd. and which persons will be responsible for keeping them up-to-date and running (Sprague, & Watson, 1996).

There is also dissatisfaction about knowledge dissemination. Because explicit and tacit knowledge has not been adequately codified in a knowledge system, the informal circuit plays an important role in the dissemination of knowledge. The respondents say about the informal circuit that it is easily accessible, flexible, easy and quick. The importance of the informal circuit for the dissemination of knowledge is being endorsed by several authors (Nonaka & Takeuchi, 1995;Davenport, & Prusak, 1998) in particular for the exchange of tacit knowledge for which face-to-face contacts are essential. However, the respondents complain about poor knowledge exchange with regards to work experience. Much knowledge is inside the heads of the employees and because this is not being recorded this disappears as a result of a frequent considerable staff turnover out of the organization. Nonaka & Takeuchi (1995) and Davenport & Prusak (1998) mention approaches such as apprenticeships and mentoring and a method like videotaping as solution to make this tacit knowledge explicit. Bertrams (1999) recommends passing on new knowledge already during the development of knowledge. Other methods to learn from experiences in projects are the creation of learning histories (Kleiner & Roth, 1997) and creating a favorable culture to stimulate communities of practice in which these experiences can be exchanged in a more informal way on a day-to-day basis (Wenger, 1999).

There is also dissatisfaction about knowledge development/creation. Within ICT Ltd. it happens that the same knowledge is being developed at two places. The employees especially experience the loss of time because of this as a problem. In the literature this problem has already been mentioned by Nonaka & Takeuchi (1995). A knowledge system with a good overview of where and with whom knowledge can be found within the organization and what each employee is doing at this moment could offer a way out. Although all respondents take the view that there is enough room to experiment and that the development of knowledge is even a part of the assessment at ICT Ltd., the knowledge manager says that there is relatively too little attention for the development of new knowledge. This problem has already been mentioned by Bertrams (1999).

The employees of ICT Ltd. experience no problems with the application of new knowledge. Barriers for the use of new knowledge mentioned by Bertrams, such as aversion to risk, fear for problems with colleagues who want to go on using older knowledge and insufficient support are not being mentioned by the respondents of ICT Ltd.

Structure. According to several authors (Bertrams, 1999; Nonaka & Takeuchi, 1995) long communication lines, a high staff turnover, not having regular discussions of progress and not working in a project based way are bottlenecks negatively influencing the knowledge management process. The first two bottlenecks are being mentioned by the respondents. They experience communication lines to colleagues as short and communication lines to the management as long. The staff turnover at ICT Ltd. is high. As already has been noted, because of this, unique personal knowledge disappears out of the organization. The last two bottlenecks do not occur. There is regular discussion of progress and they work in a project based way in ICT Ltd. The company already has a characteristic of the hypertext organization mentioned by Nonaka & Takeuchi (1995): the project-team layer, the working in projects for which the right persons are being deployed per project. However, ICT Ltd. lacks a knowledge based layer where new generated organizational knowledge is recategorised and recontextualised. Newly acquired knowledge remains for a large part in the heads of employees. Next to that ICT Ltd. has the characteristics of a flatter network structure which certainly has a positive influence on knowledge dissemination within the organization.

Culture. Of the culture mentioned by Watkins & Marsick (1993) that is learning oriented, with beliefs, values, and policies that support learning; for example, tolerance for mistakes as opportunities for learning and problem solving, and policies that reward knowledge and the sharing of knowledge as well as rewards for performance only a few traces can be found at ICT Ltd. Although much is being learned during the working in projects, no efforts are being undertaken to systematically lay down this knowledge or to share it with others, and there is no aspiration to systematically gear the competencies of the individual employees to the (future) strategy of the company by means of courses or otherwise. Furthermore, the respondents have different opinions about being able to talk openly about mistakes and doubts. And ICT Ltd. does not have policies that reward knowledge and the sharing of knowledge and offers as well rewards for performance. The respondents also differ in opinion about the question whether the management sets a good example with regards to knowledge management. Trust is not visible in this organization. Of the essential variables from the organizational culture mentioned by Bertrams (1999), such as: feedback (what happens with my knowledge), the variety of skills (do I get the chance to use that which I am learning), the recognisibility of the task (does that which I am learning add a surplus value to my ambition), the significance of the task (do I help the organization with my behaviour) and autonomy (do I get enough freedom to learn), the respondents only mention variety and autonomy. Furthermore, ICT Ltd. does exhibit the characteristics of an enterprising culture, in which innovation independent work and initiative is being expected from the employees and one works in a dynamic risky environment, but with the exception of working in teams, ICT Ltd. hardly displays characteristics of a group culture.

Strategy. ICT Ltd. has included knowledge management in its strategic policy, but the strategy is insufficiently converted into decisiveness, according to a respondent. Within ICT Ltd. there is no aspiration to systematically gear the competencies of the individual employees to the (future) strategy of the company by means of courses or otherwise.

Knowledge systems. It is important that the knowledge systems are up-to-date, well accessible and user friendly (Bertrams, 1999 and Davenport & Prusak, 1998). The knowledge systems of ICT Ltd. are not being maintained properly, are not up-to-date and the information is incomplete. It is remarkable that the director is satisfied with the current knowledge systems. The fact that the different sister companies work with different standards is considered to be a big bottleneck within ICT Ltd. The respondents take the view that the value of electronic knowledge systems must not be overrated. Especially in small organizations a knowledge system on paper can also function excellently. In larger organizations and in organizations with several branches an electronic knowledge system is indispensable, according to the respondents. In these kinds of organizations it is impossible to know who has which knowledge and skills, who has executed which projects and who is currently working on which project. Davenport & Prusak (1998) are endorsing this view. Yet as already mentioned it seems advisable that ICT Ltd. in the near future critically revises its use of information technology systems and decides which systems such as internet, EDI, intranet, MID, DSS, ERP and mechanisms such as data warehousing, data mining, knowledge mapping, electronic libraries, are most usefull for the exchange of knowledge in ICT Ltd. and which persons will be responsible for keeping them up-to-date and running (Sprague, & Watson, 1996).

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Using a Human Capital Framework to Inform Human Capital Investment Decisions

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This study analyzes organizational capabilities strategy from the human capital perspective. It includes the development and application of a methodology for utilizing a human capital framework to develop an organizational capabilities strategy, and an investigation into the resulting human capital implications.

Key Words: HR Strategy, Human Capital Investment, Organizational Capabilities

There has been an increased focus on human capital and the strategic management of an organization's talent pool in the past several years as organizations struggle to attract, develop, and retain the best and the brightest employees (Gubman, 1998). Unfortunately, strategies to analyze the capabilities needed to thrive in a knowledge economy and the accompanying organizational support systems are lacking. This study was intended to provide a vehicle that human resource professionals can use to increase their involvement in the development of organizational strategy. In addition human resource strategies and initiatives can be more appropriately aligned around those capabilities that have the greatest impact on the success of the firm.

Theoretical Framework

Human resource professionals have been challenged to gain legitimacy in the strategic planning and thinking of their organizations and have been encouraged to do so through an understanding of the business implications of effective human resource practices (Ulrich, 1997). Other than training in business strategy and encouragement to view the firm through the eyes of the line managers they serve, there has not been a pragmatic way for human resource professionals to engage in strategy development for their firm (Torraco & Swanson, 1995). Human resource leaders do not often participate as full partners in strategy development, but instead are engaged in the deployment of a strategy developed by others in the hierarchy (Jarrell, 1993).

A number of economic, demographic, and technological factors are converging to increase the competitive advantage of including a human resource perspective in the strategy process. The last several years have produced a period of low unemployment throughout the United States (Branch, 1998; Fenn, 1997; Rifkin, 1995). The increasing demand for labor is coupled with a demographic phenomenon of an aging population and a shortage of new entrants to the workforce (Greco, 1998; Gubman, 1998; *Working in America: A Chart Book*, 1988). In addition to those factors, employers are seeing the application of technology and the need for knowledge workers reach an unprecedented peak (Bassi, Benson, & Cheney, 1996; Report on the American Workforce, 1994; Salamon, 1991).

The convergence of these trends provides an opportunity for human resource professionals to demonstrate the criticality of their role in the development and validation of organizational strategy. To engage the organization they will need to demonstrate value through the perspective of the asset they oversee, human capital. This role requires an understanding of how human capital contributes to the value of the firm and how that value can be measured and leveraged to gain competitive advantage in the marketplace.

There is an emerging approach to organizational strategy focused on an organization's capabilities as a source of competitive advantage. Capabilities involve the integration or linking of activities in the value chain, they represent the skills, resources, processes and technologies of a firm (Duncan, Ginter & Swayne, 1998). The key is in focusing a strategy around these "uniquely developed set of core intellectual and service capabilities important to customers" (Quinn, 1992, p. 50).

As human capital is increasingly being recognized as the most critical source of organizational capabilities (Stewart, 1997), it is imperative that this asset be leveraged to provide optimal value for the firm. Analyzing the value of human capital requires an examination of an organization's competitive positioning, and a fundamental understanding of how capabilities contribute to the value of the firm. Understanding the value of human capital

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requires a new and different analysis approach, one that can surface the sources of competitive advantage, propose a strategy for leveraging that advantage, and implement appropriate measurement system.

This study introduces an organizational capabilities strategy process that allows human resources professionals to develop and align human resource practices in a way that increases human capabilities. The framework and methodology engages senior human resource professionals and key line managers to examine their value chain, identify external and internal opportunities, and recognize constraints for the purpose of developing a capabilities strategy for an organization. This process will investigate how capabilities create value for the firm and examine the human resource implications that result from this strategic approach. The framework will be used to analyze the impact and effectiveness of investments in human capital and allows the organization to view strategic advantage through a human capital lens.

Research Questions

The fundamental question driving this study was: How does an organization develop an organizational capabilities strategy from the human capital perspective and what are the resulting human resource management and development implications? The research being reported in this paper focused on two sub-questions:

1. Can a human capital framework be used to develop a sound organizational capabilities strategy from the human capital perspective?
2. What human capital decisions emerge throughout the organization as a result of using the human capital protocol?

Research Methodology

The research followed the general guidelines for case study research put forward by Yin in his book, *Case Study Research: Design and Methods 2nd Edition* (1994). The subject of the case study was Select Comfort®, a rapidly growing company that went through an initial public offering in December of 1998. The company is a leader in sleep solutions focusing primarily on using air technology for beds and sofa sleepers. They currently manufacture and sell their products through retail channels and direct mail. The organization was selected because they have realized rapid growth in the few years since their inception, and with the recent IPO find themselves is a situation where their constraints are capabilities, not access to capital or customers. The organization presents a unique opportunity to investigate the applications and outcomes of a capabilities based strategy process.

Capabilities Strategy Protocol

The research questions were analyzed by probing into the human capital implications of the organizational capabilities strategy. These implications were examined through a series of working sessions in which the researcher worked with the organizational leaders and HR Team to facilitate a the development of a human capital strategy using the People SCOPE™ framework. The PeopleSCOPE™ framework is introduced more fully below. The protocol used to guide the study is summarized in Table 1.

The research incorporated organizational data gathered through the fieldwork, interviews, and training experiences to examine the results of leveraging HR investments that support the organizational strategy. The research was not longitudinal and was not intended to examine the financial results of the implementation of a capabilities strategy. Instead the research was intended to look at how HR investments are positioned, what decisions can be made as a result of using a human capital framework, and to demonstrate how human capital investments can provide value for the firm. The research centered on how the HR leaders can present HR investments that contribute to the achievement of strategic organizational objectives.

Human Capital Framework

The framework used for this study has been proposed as a way to analyze the human capital implications of a firm's strategy, or to build an organizational strategy that leverages human capital. The framework first appeared in the literature as the *PeopleVantage Model of Strategic Human Resource Management* (Boudreau, 1998). The model was further developed and positioned primarily as a way to convey the synergy between organizational strategy and human capital investment (Boudreau & Ramstad, 1999a). The resulting framework, the PeopleSCOPE™ Human Capital Framework (Boudreau & Ramstad, 1999b) can be seen in Figure 1.

Table 1. Proposed Capabilities Strategy Protocol

Step	Process	Outcome
1	Planning Develop plan/Timeline Identify key participants	• Key milestones developed, briefing package for the organizations • Overview of the PeopleSCOPE™ framework
2	Field work in the organization Interviews Systems & models Financial & Strategic data review	• Gather data on 1st two levels of the framework • Mental models (beliefs) identified • Value chain defined • Strategic view of the organization
3	Identify trio by value chain element Line Manager Information Specialist Senior HR Leader	• Triad members identified, date set for team event • Includes participants who can validate the business process constraints and who understand the human capital implications of these constraints.
4	Training for HR Team	• HR leaders briefed on the PeopleSCOPE™ framework and the tools to discover HR implications throughout strategy process and understand their role from a human capabilities perspective
5	Team event Value Chain Analysis Identify Constraints	• In-depth understanding of where capabilities add value and the human capital implications • Focus on the strategy analysis gathered on the 1st two levels of the framework and the implications for the pivotal roles • Co-facilitated by the HR Team
6	HR Debriefing Session	• Organizational models and capabilities analyzed: Pivotal Roles, Aligned Action, Human Capacity • Resulting HR strategy
7	Develop HR Strategy	• Analyze the HR practices that impact the Pivotal roles and propose and HR Strategy to address the gaps
8	Brief Results	• Engage Leadership Team in Ownership of HR Strategy • Present Measurement Models

The framework presents a process whereby an organization can analyze the effective deployment of capital by looking at how investments in HR activities contribute to increased capabilities, opportunity or motivation

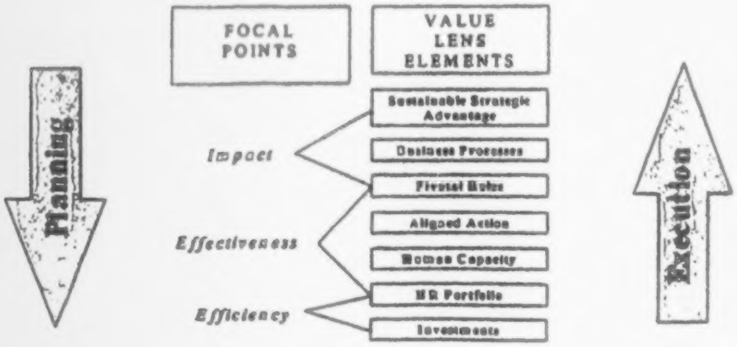
FOCAL POINTS
VALUE LENS ELEMENTS
Planning
Impact
Effectiveness
Efficiency
Sustainable Strategic Advantage
Business Processes
Pivotal Roles
Aligned Action
Human Capacity
HR Portfolio
Investments
Execution

Figure 1. The PeopleSCOPE™ Human Capital Framework

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necessary for aligned action in pivotal roles. The investment is only truly strategic, if in addition to efficiency and effectiveness, the interventions are focused on improving the business processes that have an impact on sustainable strategic advantage.

To provide further insight into the potential applications of the PeopleSCOPE™ Human Capital Framework it is helpful to understand the intended use and also the process that a researcher or practitioner would undertake to uncover the key human capital implications. The framework is intended to build line of sight from an organization's people to the specific elements of competitive advantage. The framework builds on business strategy, value creation, financial analysis and strategic human resource management to analyze economic value through the human capital lens (Boudreau & Ramstad, 1999b).

Questions are asked of the organization at each level of the framework that are intended to uncover the human capital implications of the strategic positioning. The key capability questions asked at each level of the framework are presented in Table 2.

Table 2. Capability Questions Asked for Each Value Lens Element of the PeopleSCOPE™ Human Capital Framework

Value Lens Element	Primary Capability Question	Secondary Capability Questions
Sustainable Strategic Advantage	How do we compete?	What unique value do we create within this industry? What value chain elements are critical to success? How do we generate returns from the value created?
Business Processes	What must we execute well?	How do our processes link to the value chain? How does our network of processes create: sustainability, synergy, and advantage?
Pivotal Roles	Which talent pools make or break key business processes?	Affect the critical constraints. Build and protect the strategic resource. Variance in performance has the greatest strategic effect.
Aligned Action	What employee behaviors make the biggest difference?	What are the moments of truth? Which behaviors most affect business processes? Which behaviors most affect key constituents?
Human Capacity	What people elements must exist? (COM)	Capability-Can they do it? Opportunity-Do they get the chance? Motivation-Do they want to?
HR Bundles	What work practices support high performance?	Staffing, Development, Compensation, Communication, Organization Design, Succession Planning
Investments	How do we allocate scare resources?	Money, HR Staff, Employee time, HR Influence, Leadership Attention

These questions were developed to facilitate a discovery process that could be led by the Human Resource function or initiated at various levels within the organization where human capital constraints affect strategy execution. The first two elements are primarily focused on the organization strategy while the following five begin to delve into the human capital implications of the organizational strategy and key business processes.

This framework allows for an examination of the impact that capabilities can have on the accomplishment of strategic objectives. There is also an opportunity for HR leaders to analyze the human capital implications of a given organizational strategy. The framework can be used to move the HR focus from one of efficiency and effectiveness to a concentrated effort looking at HR investments that have a financial and strategic impact on the organization. The application of this framework to identify and analyze human capital issues that are affecting key business processes is fundamental to the ability of the organization to sustain strategic advantage. This perspective changes the approach that HR professionals use in proposing HR investments.

Results and Findings

The HR team, which included the Directors and VP, worked with the researcher to examine the human capital implications that emerged as a result of the data gathered for the first three steps of the human capital framework. The outcome was to develop a plan to leverage HR investments to create value for the firm. Examples of how human capital decisions can create value for the organization will be presented in the discussion below.

An illustration provided by the researcher summarized the nature of the decisions that surfaced during the analysis. There was considerable interest in the financial and strategic impact of the current recruiting initiatives. The following example provides a baseline that the HR leaders could use for evaluating alternative human capital strategies and also provides the process steps around which all of the HR areas can be aligned to ensure organizational impact of HR investments.

The organization's strategy mandated a concentrated focus on the retail distribution channel as a source of competitive advantage. The constraints that challenged the retail value chain were sales professional dependent. For every retail employee hired:

- 20 Resumes/Applications are screened
- 10 Candidates are phone screened
- 4 Candidates are interviewed in person
- 1 Person is eventually hired
- The current turnover rate is 100%

Given this data, filling 2000 positions for the upcoming year will require 40,000 resumes/applications to be screened, 20,000 phone interviews, and 8,000 in person interviews. The issue is not only the magnitude, but the cost as well. The HR VP commented "We're spending thousands of dollars in recruitment fees. For the dollars we have spent alone in recruitment fees in a year, you could hire six people."

Once the magnitude was understood, the HR Team was in a position to start brainstorming how they might align their efforts, including adding regional recruiting centers, employee referral bonus programs and massive advertising campaigns. While these ideas had merit, the recruiting effort needed funding. This issue was addressed by reviewing the data gathered via the human capital framework and introducing the threshold ROI approach. The goal was to have the team understand the strategic and financial implications of their recommendations and also to understand how to present their human capital initiatives to the managers of the business units they support.

Using data gathered early in the protocol, it was determined that the district sales managers are spending at least 40% of their time recruiting and hiring. It was also stated that the median price for a bed was $1,200. Successful sales professionals sell three to four beds a week for an average of about twelve beds per store per week. With 332 stores currently open and the figure expected to rise to 345 stores by year end the impact of one more bed per store per year is 345 x $1,200 for a total of $414,000. The $414,000 is the amount available to be invested in recruiting and hiring if management believes that having their district sales managers in the stores two more days a week (40%) will help them sell one more bed per store per year. The threshold ROI approach incorporates financial data already known about the business and proposes the intervention in a way that allows the senior managers to make an informed investment decision. In this case, management had identified having the district sales manager visible and involved in the stores as a key success factor. Positioning the decision in a more compelling way makes the HR investment an easier sell. Such as "'What is it worth to you to have your district sales managers in the stores two more days a week?" "Could you sell one more bed per store per year if the district sales manager were available to be in the stores two more days per week?" This discussion demonstrates the strategic perspective of human capital and lays the groundwork for investment in capabilities. In this particular case when the Director of Retail Human Resources presented this example to the Senior VP of Retail his response was "now you're thinking".

Analyzing the appropriate investment of resources in particular HR initiatives or bundles, the HR professionals are in a much better position to align their efforts. In this case there may be retention strategies, which include training, that ensures that the sales professional is more successful and thus stays longer with the organization. There may be an opportunity to provide bonuses based on tenure or to managers who are better able to retain their successful sales professionals. This analysis can also be used to determine the amount of investment in recruiting, and even to determine the financial impact of a change in the compensation structure.

The point for the HR Team and for others within the organization is that starting the analysis with an understanding of the sustainable strategic advantage and key business processes provides a "line of sight" to pivotal roles within the organization. Once the pivotal roles are understood from a strategic perspective, HR professionals are in a much better position to analyze the behaviors that most impact the business and determine whether the constraint is one of capability, opportunity, or motivation. This understanding provides the strategic context for recommending HR investments to build capabilities that will have the greatest impact on the organization. Using the sales professionals as a pivotal role, the following section will illustrate how this organization is using a strategic approach to building capabilities within their sales function and how these investments can create value for the organization.

The study resulted in the development of a five-year HR strategic plan. Of the initiatives outlined in the plan, the area that has received the greatest amount of management support and interest was in the attraction, motivation, and retention of sales professionals. The business strategy is dependent on a successful approach to recruiting and hiring these employees, and the senior management of the retail sales channel has acknowledged the importance of placing and keeping key people in these roles. Management has also shown a willingness to partner with the HR staff to develop solutions that are not only efficient, but that have the biggest impact on achieving the organization's strategic and financial goals.

The sales professional role is critical for a number of reasons that need to be illustrated here. There are very few sales professionals in any one store. In fact stores with $1,000,000 in annual sales revenue operate with a sales force of three to four people. It should also be noted that there are large variances in performance between the high performers and the average performers, and a strong correlation between tenure and sales performance. There is great benefit to having a high performer in the store as evidenced from the sales figures, and those higher performers tend to have a longer tenure. While differences in performance for high and average performers can be illustrated, it is not known how much poor performers hurt potential sales and brand image beyond the fact that the sale was not made. In other words, there is a potential revenue loss that is not captured when poor to average performers are allowed to continue to work in the store. It is also important for the accomplishment of the organization's growth strategy that potential district and regional sales managers be identified. While their performance may be evidenced in their sales figures there have been instances where a Sales Professional who was only rated as average in sales performance went on to become a highly effective District Sales Manager, managing high performing stores and sales professionals.

The question then posed to the HR leaders was how to develop strategies that allow them to attract and retain these key employees. They also needed to analyze and recommend practices that support high performance. In order to accomplish these objectives there has to be a focus on where to invest money, HR staff time and influence, employee time, and leadership attention. This determination needs to be based on a "line of sight" to the business drivers and how the role of the sales professionals contributes to organizational goal attainment. The questions that need to be answered start with what attracts potential candidates to this position, what they are looking for, and what motivates them to stay and perform well. There also needs to be a way to assess their potential and performance over time. Finally, there needs to be an understanding of the obstacles to their success and an examination of those work practices that inhibit their ability to achieve sales quotas.

In the examination of the sales professionals in this study, a number of HR strategies have been suggested. The hiring requirements present a significant challenge for HR given that they currently are managing the entire Retail side of the business with one director, two recruiters, and two generalists. The answer however, is not simply hiring more recruiters, but analyzing alternatives to managing the entire staffing process. The initiatives that have started as a result of this study include:

- Developing a competency model to include behavioral anchors and standards for all Store Managers and Sales Professionals.
- Creating a custom interview guide to help Sales Managers select Sales Professionals based on the competency model.
- Establishing a performance management system that rewards behaviors determined to be desirable.
- Establishing a measurement system that compares actual performance to predicted performance of Sales Professionals to validate the accuracy of the interview guide in predicting behavior.
- Comparing the predictor data for each Sales Manager to assess which managers are better at identifying successful Sales Professionals.

One of the first processes being initiated is an examination of the behavioral competencies needed to be successful in the sales professional role. While there is currently an interview guide available to the store managers, it is not being used consistently and in fact may not be providing insight into what makes a successful sales professional in this organization. The Sr. VP of Retail stated that in the past they have tended to hire high energy, gregarious people. "We were practically looking for the stand-up comedian." In retrospect, customers may feel uncomfortable making an intimate purchase from a person hired for these characteristics. In addition these gregarious sales people need a great deal of interaction to be effective and there is not always enough traffic in the store to keep them motivated. The sales professionals spend a great deal of their time on the phone following-up on leads. This type of selling may not be all that appealing to the gregarious, high-energy sales people they have hired in the past. So, in order to enhance their ability to create value the organization needs to look at the competencies demonstrated to be correlated with success for this company. The Retail HR Director made it clear that they can not use a standard competency model for sales professionals since this type of selling is unlike traditional home furnishing selling. The store model is different with the single product and the amount of product knowledge that must be conveyed to the customer.

As a result of the strategic process initiated in this study the organization is now developing a competency based interviewing process that will allow them to maintain consistency in their hiring as well as allow them to increase their likelihood of selecting for success. The process involves understanding the correlation between sales performance and other variables, such as tenure, management influence, promotional activity, and location. Results of the interview guide can be compared at a later time to determine how that person performs against expectations. The data can also be used to evaluate the performance of the hiring manager. If for example, it is shown that a particular manager has no ability to predict future performance during an interview, they may need additional training or be removed from the hiring process. Conversely, if there are people who are particularly insightful they may be used to train other managers in what to look for and how to conduct the interview, or they may take a larger role in the hiring process beyond their region. Each of these alternatives creates value for the organization by increasing the likelihood of hiring candidates who have a high propensity to be successful in the organization.

The proposed competency model needs to be a component of a comprehensive staffing strategy built around the following initiatives:

- attract a larger pool of qualified candidates,
- provide an efficient method for screening out candidates who do not meet the criteria,
- land a high percentage of candidates to whom they have made offers,
- retain a high percentage of the best sales professionals,
- effectively identify sales professionals with the potential to be effective district and regional managers.

One of the underlying pressures is to accomplish all of these objectives while freeing up the managers from spending 40% of their time in the recruiting and hiring process.

Also under way are a number of discussions around the capability, opportunity, and motivation of the sales professionals. While there has been an effort underway to provide additional and better training for these employees, there has been limited analysis on whether the sales professionals have the opportunity to be successful. In other words, do they get the chance to be as successful as they can be? HR creates value for the organization by ensuring that organizational impediments to success are resolved. These impediments can be related to the system, the product, the management, and even the compensation system. HR's involvement in the resolution of any of these barriers creates value for the organization.

It is important that HR professionals analyze the motivational aspects of the job and the talent pool. What practices are in place to ensure that individuals can be successful? What stands in the way? The standard answer to this question usually includes compensation and benefits when motivational studies (Pritchard, 1995), point out that there are a number of factors which contribute to the valuation of rewards, including control systems, productivity, measurement and feedback, and contingent rewards. It is important to understand how the employee's behavior, results of that behavior, and performance contribute to the motivating value of intrinsic and extrinsic rewards.

Conclusions and Recommendations

The study focused on the central question of how an organization can develop a capabilities strategy and the resulting HRD implications. The question was divided into two sub-questions. The first focused on the human capital framework and analysis protocol that was used to provide insight into how the HR group could deploy an organizational capabilites strategy and be more proactive in initiating activities that contribute to organizational success. The HR team elevated their level of strategic understanding and positioning by evaluating HR investments in a strategic context. Looking at how human capital decisions create value for the firm this HR organization used the human capital framework to align their investments with the strategic direction of the business units. Human capital challenges are being addressed at every level and the HR professionals are better equipped to address these challenges and provide solutions that create value.

The second sub-question focused on the human capital decisions that emerged through the process. The first steps outlined in the PeopleSCOPE™ framework require an understanding of how sustainable strategic advantage and business process constraints provide direction for HR alignment. The findings raised questions about the focus on additional distribution sites, requiring additional sales professionals. The sales professional role was considered pivotal for a number of reasons, not the least of which was the sheer volume of sales people needed. Currently there are 1,200 sales professionals staffing 350 distribution sites. If distribution sites grow to 1,200 in five years there would need to be over 4,800 sales professionals by the end of 2004. The prospect of attracting and hiring an additional 3,600 sales professionals would be challenging enough, exacerbating the situation is the organization's 100% turnover rate. Thus the number of people to be hired in the next five years would be closer to 10,000. Articulating these issues and providing a sound framework for evaluating alternatives was a key outcome.

Contribution to New Knowledge in HRD

HRD professionals are being challenged by their organizations to become more strategic in the alignment and deployment of HR investments. The human capital framework presented in this case study provides a vehicle for engaging in discussions centered on sustainable strategic advantage and key business processes. Evaluating HR investments with a line of sight to the impact these investments have on the strategic success of the organization increases the likelihood that these initiatives will be funded. Approaching investment decisions from the capabilities perspective provides HRD professionals with a position of leverage and increases the likelihood that HRD will be included in the development of organizational strategies, not simply their execution.

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Human Capital, HRD and the Knowledge Organization

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Using an economic approach this paper both explains the foundations of HRD and proposes a framework to understand the knowledge organization. The paper proposes economics as the primary theoretical influence of HRD. The theory of human capital and the theory of the firm are first reviewed in their relationship with training. From there it follows a discussion of the knowledge organization and the implications for organization development.

Keywords: Human Capital, Knowledge Organization, HRD Definitions

In recent years there has been a continuous debate about the theoretical foundations of HRD. The current drive originated with McLagan's (1989) and Gradous' (1989) works and was shaped with Swanson's (1995), who proposed systems theory, psychology and economic theory as the foundations of the discipline of HRD. Others, like McLean (1998), have argued if only those or any other theories are needed as foundations of HRD. The discussion has extended to other areas, as Hatcher (2000) recently explored how those foundations have impacted the research and practice of HRD professionals.

Since Gradous (1989) and McLagan (1989), recent literature addresses mostly systems theory (Ruona, 1998; Swanson, 1995, 1998), and less frequently the psychological foundation (e.g., Holton, 1998) or the economic foundation (e.g. Torraco, 1998). Other theories have been added afterwards, but always around the ones included in this debate, like the theory of performance (Weinberger, 1998), or ethics (Swanson, 1997). Notoriously, economics, and specially those economic theories reviewed in this paper, have only been obliquely examined as theoretical foundations of HRD. The few publications on economics as theoretical foundation of HRD either fail to give a comprehensive explanation about the relationship between these two disciplines, or invoke generic approaches to economics.

What we propose here is economics to be the primary or leading theoretical foundation of HRD. If systems theory explains the relationships within the organizations that are to be addressed by HRD, and if psychology provides an understanding of how interventions are to be made and the impact they will have, economic theory explains why investment decisions in developing human resources are made.

Problem Statement and Purpose

Economics has been proposed as one of the theoretical foundations of HRD, and there seems to be a general agreement around it. However, literature has not fully developed an explanation about the relationship between these two fields. A related issue is that whenever economics (i.e., the human capital theory) has been invoked, it has historically focused on training; no explanation has been made about the relationship between economics and organization development. A third problem is that there are critical HRD issues associated with the economic view that remain unseen, even though they have become widely recognized as important for organizations today. In particular, that is the case of knowledge in the organization.

The purpose of this paper is twofold: (a) to review and explain the economic theoretical underpinnings as they relate to HRD; and (b) to propose a framework to understand knowledge in the organization based on the economic theory of human capital. The paper will conclude with definitions of HRD and OD. These issues are crucial for HRD since HRD focuses on improving performance in the organization. Thus, HRD is unequivocally positioned and it is explained because of the economic context of the organization.

Theoretical Framework

Economic Theory as Theoretical Foundation of HRD

Economic theory, although recognized as an important theoretical foundation, has received little attention

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in the HRD literature. A recent survey reported by Hatcher (2000) indicates that in fact "psychology, followed by general systems theory, and ethics had the most influence on HRD theory and practice" (p. 44). However, economics is always associated with the benefits of training, and financial and other models have been developed to explain the return on investment provided by HRD interventions (Phillips, 1999; Swanson & Gradous, 1988).

Two major economic theories are here proposed as the leading foundations of human resource development—human capital, and the theory of the firm. Other economic theories and areas are related to HRD as well (Cho, 1998), but their contribution in terms of theoretical foundation are not as central. Therefore, we reduce the scope of our explanation to those proposed above.

Our explanation of the HRD economic theoretical foundation (using the theories of human capital and the firm) comes from the realization that they come to a point of convergence when the individual works in a firm. That is, the theory of the firm and the human capital theory will jointly explain firm investments in training (and HRD interventions in general) while the individual is in the workplace. The human capital and firm theories would not be fully understood, had we not had a general context provided by the firm where training occurs. This common area will be the focus of this paper.

The discussion undertaken in this paper is about the *fundamental economic aspects that relate to HRD*. Therefore, it does not neglect the importance of other economic areas and theories like internal labor markets, the principal/agent theory, transaction cost economics, vertical integration and the like. These latter, widely developed in the field of industrial organization, are to further explain related issues, many of them linked to human resource *management* instead. On the other hand, this paper's approach does not neglect the *profound* relationship of HRD with adult education theories or other HRD theoretical foundations and their particular explanation of the field.

Therefore, our primary interest is in how the theory of the firm and the human capital theory inform us about the behavior of the firm and why investments on human capital, or persons, should take place, and how investments in human capital are to improve the productivity of the person and of the firm.

One of the central aspects in this discussion is the realization that there is one *historical* and exclusive trend in explaining HRD from an economic perspective--the theoretical aspects of economics have been always related, in the HRD discipline, to the *training* component. Therefore, there is a need to provide an explanation about *organization development* from the economic perspective. The proposed framework of human capital and knowledge developed in the second part of this paper aims at providing an understanding of the economics of the *organization development* strand of HRD. To understand and develop that framework, we need to first review the core literature on human capital theory and the theory of the firm vis-à-vis the training component of HRD.

Human Capital and the Training Component of HRD. A Review of the Core Literature

Economic theory as foundation of the human resource development discipline can be depicted as in Figure 1. The theory of human capital has been pointed out as the theory that better explains the gains of education and training. What Schultz (1961, 1962), Mincer (1958, 1962), and most notably Becker (1993) explained with this theory is the impact education and training have in a person's lifelong earnings and wages.

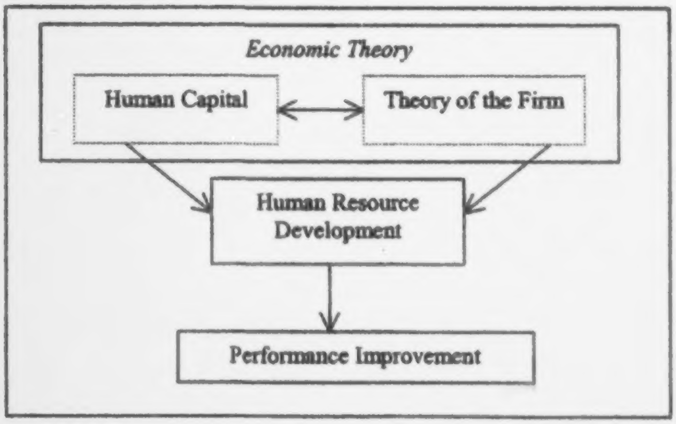

Figure 1. Economic Theory as Foundation of the Human Resource Development Discipline

The main proposition of the human capital theory is that human capital is considered a form of capital. Schultz (1961) stated that "skills and knowledge are a form of capital," and that "this capital is in substantial part a product of deliberate investment" (p. 1). That is, education and training are processes of human capital formation of people resulting from deliberate investments—although education and training are not the only to account for human capital formation, since the concept of human capital also encompasses other activities that improve the human capabilities, mainly health facilities and services, study programs for adults, and migration (Schultz, 1961, 1962).

Education and training are the most notorious concept of the human capital theory, and certainly the concepts that have most direct linkage with HRD. Becker (1993) contends that "school and college education in the United Sates greatly raise a person's income" (p. 17), and that "many workers increase their productivity by learning new skills and perfecting old ones while on the job" (p. 31). Education and schooling are seen as the activities that will prepare the labor force (Mincer, 1962), and account for the "otherwise unexplained rise in earnings" (Schultz, 1961, p. 10). In fact, "the earnings of more educated people are almost always well above average" (Becker, 1993, p. 17), a trend that has kept over the past decades and even increased: "Twenty years ago, the average college graduate earned 38 percent more than the average high-school graduate. Today, it is 71 percent more." (U.S. Department of Labor, 1999, p. 18). Costs of education, including actual expenditures and foregone salaries are considered investments.

Similarly, training in any form is also a form of human capital formation. As in education, training has been singled out as explaining the variation in wages and earnings. If formal school instruction is not sufficient to prepare the labor force, the training process "is usually the end of a more general and preparatory stage, and the beginning of a more specialized and often prolonged process of acquisition of occupational skill, after entry into the labor force" (Mincer, 1962, p. 50). Looking at education and training this way, it can be said they represent mostly an individualized perspective of the theory of human capital.

The Firm as the Context for Training and HRD

The theory of the firm relates to the production theories. It explains the use of inputs to produce an output. It also explains how firms organize their production in an efficient way, and how the costs of production change due to changes in the prices of input and the output level. In the production process, firms use inputs or factors of production. Traditionally, those factors of production included raw materials, capital, and labor. This traditional definition considered labor as being the *physical* activity. Modern literature maintains that labor as a factor of production is not enough to describe the work of persons in organizations, and call it instead *human capital*, which is a form of capital as described above, but it is different from the financial capital. For an efficient management of the firm, the factor labor or human capital needs to be adequately combined with the other factors. One way of doing it is by optimizing the performance of human capital through training. The emphasis in the role of human resources is called the "human resource-based view of the firm."

Training occurs in the context of the firm, and it is usually provided by the firm. If so, the investment decision is explained by the firm positioning and interests. In that manner, the theory of the firm will explain when and under what conditions investment decisions are made.

We have talked about human capital as a form of capital. However, the concept of human capital clearly diverts from firm's classical conception and its three factors of production—raw materials, labor and capital. The concept of human capital has forced to a redefinition of the concept of capital, and it is currently considered a form of capital. "The failure to treat human resources as a form of capital [...] fostered the retention of the classical notion of labor as a capacity to do manual work requiring little knowledge and skills" (Schultz, 1961, p. 3). Some authors have attempted to further clarify this point, and proposed that the human activity is present in the firm in two different factors of production--e.g., raw labor and human capital (Friedman,1990), the former called "rivalous goods" and "non-rivalous" the latter (Bradley, 1997; Klenow, 1998).

In the context of the firm, then, the process of human capital formation occurs mainly through training--as explained historically. However, two main types of training can happen in the firm.

General Training. The theory of the firm allows us to understand the way organizations manage their human resources. Becker (1993) distinguished the two types of on-the-job training—general, and specific. The first one, general training, is simply characterized as the training that is "useful in many firms besides those providing it" (p. 33). That is, the learned skills and knowledge can be used in that firm as well as in others. The resulting effect is that knowledge and skills are transferable from organization to organization.

By providing this type of training the firm may capture some of the returns from its investment, but they also take the risk of other firms taking those returns when the employee decides to switch jobs. That is why many firms would provide general training only if they do not pay for it. If workers pay for it, they are increasing their future wages—mostly in the form of working for another employer at a higher salary. The assumption here is that there are many buyers for those skills, so the employee can move in the labor market. General training allows the worker to increase his negotiation capability within the labor market—in terms of selecting a job in a different organization with a higher salary. It has been indicated that if a person with a general skill is needed, firms most likely will look for those skills outside the firm—e.g., through outsourcing (Lepak & Snell, 1999). What this reveals is that the firm may not be interested in paying for general training.

Firm-Specific Training. Specific training plays a different, opposite role of general training, and the consequences of specific training are different for both the employee and the firm. Specific training has been defined as training "that has no effect on the productivity of trainees that would be useful in other firms" (Becker, 1993, p. 40). That is, those skills and knowledge learned through specific training will most likely be used only in the firm providing the training. In this case, the organization pays for the training, but it will also collect the returns of that investment in the form of increased marginal productivity.

This is the reason why organizations will provide training, and by appropriating the returns in a sufficient manner, they will be covered if the employee decides to quit for a different job. However, if employers are interested in keeping those employees, the organization needs to share the rewards of the increased productivity with the employee, namely they have to increase his or her salary to an amount higher than the salary offered by any other employee (Flamholtz & Lacey, 1981). This condition will create a tie between the employer and the worker, and in times of downsizing "the probability of turnover for a specifically trained employee is lower than that of generally trained employees" (Flamholtz & Lacey, 1981, p. 33). In addition, the replacement cost of that employee with specific skills is high, in which case the employer will consider different alternatives to retain that employee before letting him or her go.

The purpose of specific training is to increase the employee's marginal productivity—i.e., to improve performance. That is the goal of the firm, and both the employee and the firm will benefit from the increased marginal productivity—the increased performance. The employee will benefit from having a better salary, and the firm will benefit from appropriating the marginal productivity. Wages are to increase after specific training, but they will be set below the worker's marginal productivity. The difference between the employee's new marginal productivity (the improved performance) and the salary paid is the return that firms will collect (Flamholtz & Lacey, 1981).

Some implications derive from this. The first one is that human capital developed by specific training becomes unique. Outsourcing and alliances may be considered to manage the uniqueness of this type of human capital and the needs for additional human capital, but it is not strategic. Thus, organizations are willing to invest in this type of training. Second, employees trained this way become strategically important for the organization, and become integral part of the competitive advantage of the firm. Finally, firms will develop, in that sense, an internal labor market, and will chose people from there before outsourcing (Lepak & Snell, 1999).

The Knowledge Organization: Developing a Framework from the Human Capital Perspective

The Knowledge Organization

We have explained above how investments in training impact both the person and the organization. One very important result for the organization is the amount of knowledge and skills developed to increase organizational performance—which also means the firm benefits from the individual's increase in marginal productivity. Training thus develops skills and knowledge *in the individual*. The employee will apply what she or he has learned to the job. The amount of knowledge actually applied will depend on each person, and in the organization's capability to make it happen. This pattern is repeated for all workers. The organization will be interested in getting those skills and knowledge applied to the jobs at a maximum level, so as to increase the worker's marginal productivity or performance, and therefore to increase the organization's profit maximization. In this process, the organization realizes the best way of maximizing those recently developed skills and knowledge (in addition to all the existing knowledge and expertise) is by aligning them around the organization's mission, goals and strategy. To accomplish this, the firm needs to organize those knowledge and skills. By doing so, it will increase the individual, team and organization performance.

What the firm does first is to *articulate* the acquired knowledge of the trained person with the knowledge acquired by other trained employees, and align the knowledge thus articulated with the organization strategy. Organizations do this to some extent, but only those that make that explicit perform better in business. But it is not enough to articulate knowledge in such a way. In order to become truly competitive, the organization will also need to *aggregate* the existing knowledge of these employees for a better performance of both employees and the firm as organization. That gives the organization the capability of moving towards *creating or innovating*, not only developing, knowledge. These two facets are critical for the organization for its positioning in a competitive manner in the business environment. These two compounded facets make up the *knowledge organization*.

Defining the Framework: The Five Strands of the Knowledge Organization

To better understand the knowledge organization, five defining strands are here proposed. They form the initial framework that explain why the organization deals with the employees' knowledge, and how human resource development efforts are meant to make that knowledge evident, improve its use, align it to the organization goals, and improve the firm's performance through its use.

The framework five defining strands are: the framework is based on the individual's own education, experience, and training; it implies the extensive use of knowledge, as opposed to physical labor; the knowledge is inter-related to others in the organization, and to the organization's processes and goals; the knowledge is organized by the organization; and it allows the use of knowledge at different levels.

1. Education, Experience and Training. The first defining aspect is that human capital formation while *in the firm* happens primarily as result of on-the-job training. However, training is built upon, develops and unleashes other skills and knowledge gained through the individual's education prior to or concurrent with entering the job market. In addition, persons will enter the firm with some experience gained in other settings. Finally, more experience is gained while in the firm. In fact, more people would be willing to give up earnings in exchange for experience that will also be part of the human capital formation process and that will result in improved performance. That is, the specialization of employees through training follows a built-upon model. The organization will identify the potential for specific training based on current performance, which in turn is based on education background, as well as experience. It is the human capital formation process that occurs in the organization primarily through training, but also through organization development (see below) that becomes the core of the knowledge organization.

2. Skills and Knowledge. The ultimate outcome of both education and training is the development of new skills and knowledge in the individual. Once the skills and knowledge have been identified, they are to be used by the organization to improve performance. In addition to personal growth, or consolidation of values and culture (both goals of adult education theories and philosophies), the organization will put emphasis in the *use of knowledge*. In other words, the emphasis is on the adequate use of the marginal productivity of the worker. There is no turning point so as to consider labor as a physical labor only like in the traditional concept of factors of production. There is a clear growth and change from the touch labor to the knowledge worker (Lepak & Snell, 1999).

3. Articulated Knowledge. Skills and knowledge are not used in an isolated manner and individually but in conjunction with other employees' knowledge and in the context of the organization's structure, policies and goals. There is an existing, actual knowledge that the organization needs to articulate, to organize. That knowledge comes from the individual's education, experience and training, and from other organizational interventions that will develop it (see below). Without linking that knowledge, without making connection of existing knowledge at different levels, without articulating the knowledge towards the common goal of the organization, towards the mission of the organization, the existing knowledge of those employees will be underused, underestimated, and the capacity of the organization, including its strategic positioning, will be diminished.

The articulation of knowledge needs to be an explicit function of the organization. Otherwise, the survival of the organization is in jeopardy. Existing literature already provides different definitions, ways of understanding, and means to aligning existing knowledge in the organization (among many others, Demarest, 1997; Edvinsson & Sullivan, 1996; Nonaka, Reinmoeller, & Senoo, 1998; Stewart, 1999; Wiig, 1997a; Wilkins, van Wegen, & de Hoog, 1997).

4. Aggregating Knowledge: The Organization's Potential. What distinguishes the *knowledge organization* is its capacity to organize the knowledge of its workers, but more importantly is its capacity to *aggregate* the existing knowledge, to transform it, and to use it in different forms. Innovation is clearly one of its main objectives and outcomes. Knowledge is then business arranged, strategically oriented, and profit maximizing. The knowledge organization will process knowledge (internally developed or acquired from external sources) in order to transform it—which will occur only as a result of the aggregation process knowledge. The aggregated knowledge is then a product of the organization's internal learning and its absorptive capacity (McMillan & Hamilton, 2000). To some extent, this aggregate vision of human capital has been neglected, and a continued discussion is needed. Nevertheless, many authors will explain the way educated or trained workers increased *their* salaries; they will also explain how those workers in those *companies* are responsible for economic growth; and how this is a distinguishing characteristics of the US and industrialized economies vis-à-vis less industrialized economies. However, the success of an organization is not attributed to the individual training of the organization's workers, but to the strategic use of the aggregated knowledge in that organization.

5. Improvement Levels. Knowledge articulated and aggregated in the way described above, through human resource development interventions, make improvement at three main levels: a) it improves functions for each person, team or unit; b) it improves relationships among and between personnel, teams, units and the organization as a whole; and c) it improves flows at the systems level, so as to adjust all components according to the knowledge thus articulated and aggregated.

Contributions to New Knowledge, and Implications for HRD

Redefining the Conceptual Nature of Organization Development. Traditionally, one way the knowledge articulation and aggregation is made is through what is called "knowledge management". (There are some authors that distinguish between knowledge management and intellectual capital, where the former is subordinate and supports the creativity of intellectual capital (Wiig, 1997b), but for purpose of this paper I will speak generally of knowledge management as encompassing both functions). As such, knowledge management is proposed as a specific function, translated most of times into a designated unit in the organization. In order to articulate and aggregate that knowledge within the organization, the organization follows at least seven distinctive steps: identifying, unleashing/creating, gathering, storing, managing, innovating and delivering.

What we propose here is that *organization development*, through all types of interventions, *is about managing knowledge*. That is, *the main function of organization development is to articulate and aggregate knowledge*. OD does that by unleashing knowledge and skills. Therefore, organization development is a major performer of knowledge management—although it has not always been understood that way. That is, from the human resource development perspective, knowledge management in the organization is performed through any organization development intervention. Existing literature does not make that explicit, nor practitioners are fully aware of this fact. By introducing changes in the organization with the purpose of improving performance, what organization development interventions are ultimately doing is identifying knowledge, unleashing/creating knowledge, gathering knowledge, managing knowledge, and certainly impacting in the storing, innovation and delivering of knowledge within and outside the organization.

Organization Development and Human Capital. If organization development is about articulating and aggregating knowledge, it follows that, as the training function, *organization development is a form of the human capital formation process*. That is, organization development, as training and in close interaction with it, makes possible the unleashing of knowledge in the organization to increase performance at different levels.

By understanding organization development this way there is a clear change in the understanding of its nature. But more importantly, there is a clear implication for the human capital theory that has been traditionally and exclusively related to training. In that sense, and although further work is needed in this area, human capital theory will need to be re-addressed so as to include organization development along with training to explain why investments in organization development interventions will also increase the individual's salary (by increasing its productivity or performance), and therefore the possibility of the firm to capture more returns due to increase of the individual's performance. Secondly, a formulation in that sense will also need to reconsider organization development in the same level as firm-specific training. Thirdly, organization development interventions, as in the case of training, will need to also be considered investments in human capital. The relationship between the human capital theory, the theory of the firm and the reformulated view of OD and training is depicted in Figure 2.

The Knowledge Organization, the Learning Organization, and the HRD Definition. The knowledge organization has here been described from the economic perspective, and HRD is responsible for fostering this function in the organization. Knowledge organization then becomes an overarching definition that is based on and goes beyond other definitions—e.g., the learning organization, the teaching organization—in the sense that knowledge encompasses both learning and teaching. One clear implication is reflected in the understanding of the learning organization (Watkins & Marsick, 1995). Learning organization describes the organization in a permanent process—i.e., learning. The knowledge organization postulates that learning is indeed central for the knowledge organization, but there is the knowledge component—i.e., skills, data, experience—that needs to be organized and re-discovered to feedback the organization itself, in a continuous alignment with the organization's mission and goals. As Cummings and Worley (2001) have suggested, the organization development profession needs to go beyond process measures and to increasingly rely on objective records of economic outcomes in doing its work.

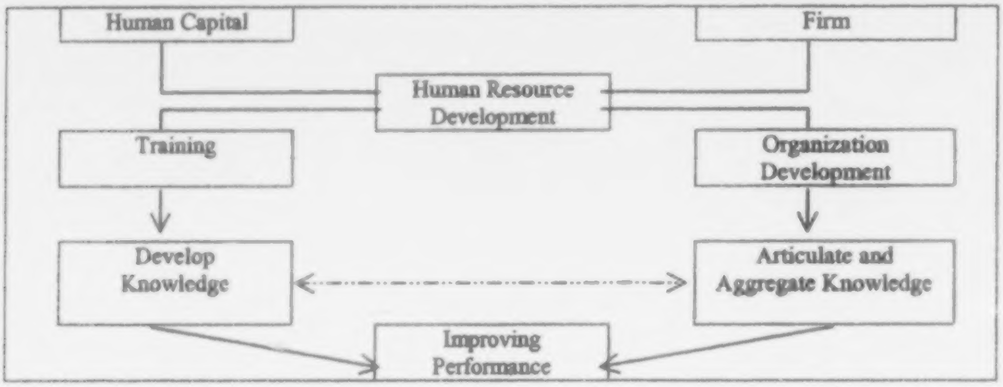

Figure 2. The Knowledge Organization

From the economic perspective, *the knowledge organization is then defined as the organization that has the capability to articulate and aggregate knowledge*. That is, it is the organization that *articulates* and *aggregates* the knowledge of employees going through the process of human capital formation. Because it is in the firm's economic interests to provide specific training to those employees, it is also in its interests to build on that knowledge to become even more competitive and be strategically aligned in its business environment.

Finally, based on the economic perspective, a new definition of HRD is proposed as follows: "HRD is a process of human capital formation through organization development, and training and development for the purpose of improving performance". The central aspect of this definition is the understanding of HRD as *the process of human capital formation*. It becomes a key element, since it encompasses the distinguishing function of both training and development, and organization development.

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Institutionalizing Organizational Change through Cascade Training: Implications for HRD Research

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Why do some organizational change efforts persist and become institutionalized and why others are just temporary phenomena and eventually fail. This paper proposes that the institutionalization of change should be addressed as a major part of the change process. The paper suggests that cascade training be used to address institutionalization issues. Cascade training conjures the image of having critical information flow from one group to another until it reaches the final destination.

Keywords: Organizational change, Cascade training, Institutionalization of change

A major insurance company recently introduced a corporate-wide performance management appraisal system to help reward their best employees, reduce unnecessary salary costs, and ensure greater organizational competitiveness. Using an appraisal system based on performance outcomes represented a dramatic cultural shift for the organization, since the previous appraisal system focused more on behavioral indicators and it was used inconsistently throughout the organization. The human resource development function was assigned the responsibility of informing all employees, approximately 25,000 nationwide, about the system and ensuring that managers and supervisors had the competence to implement it within their business units.

The brief case study suggests two basic challenges for many organizations today. The first challenge is to determine what actions to take in response to emerging business needs. The second challenge, and perhaps the more difficult one, is to determine how to ensure that the change effort becomes part of the fabric of the organization over the long term. That is, after some initial period of success and interest, the question arises why do some organizational change efforts persist and become institutionalized and why others are just temporary phenomena and eventually fail. Indeed, the question might be asked whether most planned change efforts are doomed to fail?

The importance of this question to human resource development theory and practice should be apparent. If HRD scholars and practitioners are interested in bringing about long-term changes in organizations, then they must know more about what variables will ensure that those goals are achieved. This paper proposes that the institutionalization of change should be addressed as a major part of the change process. Further, the paper suggests an approach called *cascade training* to address institutionalization issues. Cascade training conjures the image of having critical information, similar to that of a waterfall, flow from one group to another until it reaches the final destination.

Specifically, this paper discusses a framework from the literature for institutionalizing organizational change. Second, the paper introduces the concept of cascade training and the four variations of its use. Finally, the paper proposes implications for human resource development research.

Institutionalization of Organizational Change

Researchers have long noted the unique difficulties of institutionalizing organizational change (Mirvis & Berg, 1977; Levine, 1980). Goodman and Dean (1983) examined the persistence of change in selected organizations in which change programs had been successfully introduced and where positive benefits had initially been identified. They interviewed participants four to five years after the projects had been implemented and showed that only one

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third of the projects remained to any discernible degree, while the others were in decline or non-existent.

Beer, Eisenstat, and Spector (1990) discuss the failure of organizational change in view of the need among most organizations to respond to increased challenges to their competitiveness and, eventually, their survival. Many have come to understand that the key for their future success is to transform the way the organization functions. Unfortunately, these efforts have generally not proven to be successful.

More recently, a research study conducted by the consulting firm, A. T. Kearney, reports that managers in 294 European medium-sized companies reported that only one in five change efforts were viewed as being successful. The remaining efforts either made some initial improvements, but had failed to sustain them, or made no improvements whatsoever (A. T. Kearney, 1999). Thus, there is compelling evidence to suggest the continuing uncertainty of maintaining organizational change over time, in spite of the ongoing need for managers to implement change as a means to remain productive and competitive.

As shown in Figure 1, Cummings and Worley (1997) propose a systems-based framework for institutionalizing organizational change, which shows how organization characteristics influence intervention characteristics and each of them in turn influences institutionalization processes, resulting in institutionalization outcomes. The outcomes show the extent to which the change has taken hold and can, presumably, be sustained over time. The framework suggests that failure can occur because of inadequate attention to any one or a combination of the organization characteristics, the intervention characteristics, or the institutionalization processes. Thus, to ensure long-term success, the institutionalization processes require as much attention as the other parts of the framework, if not more so.

Cummings and Worley (1997) posit that institutionalization processes infer a developmental order, such that having competence related to the intervention is prerequisite to employee commitment, and employee commitment is prerequisite to the allocation of rewards, and the allocation of rewards is prerequisite to the diffusion of the change beyond the immediate setting, and so on. Logically, it follows that having the ability to meet new role expectations serves to reduce uncertainty, a primary barrier for accepting change.

Cascade Training

Given the foundational role of individual competence on successful organizational change, it follows that training be considered a key institutionalization process. Indeed, numerous authors have pointed out the importance of training to facilitate the organizational change process (Nadler & Gerstein, 1992; Jacobs, 1999). But, few if any of these references provide specific information on what outcomes the training should achieve or how the training should be done. It is suggested that when training is part of the institutionalization process, it should achieve the following goals:

A. Address the respective competence needs of the employees affected by the change, including the use of awareness, managerial, and technical training;
B. Use an array of training approaches that are best suited to meet those needs, including both training conducted on-the-job and off-the-job; and,
C. Be coordinated so that the training outcomes of one group are reconciled with the training outcomes of other groups.

Cascade training has been defined as the process of providing the competence required to ensure the institutionalization of organizational change. The first reported use of cascade training was to implement Job Instruction Training (JIT) programs as part of Training Within Industry (TWI) effort during WWII. As reported by Dooley (1945), plant managers were trained by the TWI staff on the need for effective technical training in their organizations. In turn, these individuals were expected to train their line managers on the issue, who in turn helped their supervisors become OJT trainers. In the end, supervisors were expected to deliver the technical training through OJT to production employees. The TWI used a deliberate approach to influence how individuals at each level of their client organizations viewed training and its importance for turning out quality products to support the war-production effort.

Cascade training again appeared in the early 1980s as several major organizations, most prominently was Xerox, relied upon integrated training programs to convey general concepts about total quality management (Galagan, 1990; Carnevale, 1991). Cascade training offered a logical approach to disseminate this information through the ranks of employees in a relatively short period of time.

Four types of cascade training have been identified: 1) hierarchical, 2) process, 3) employee role, and 4) project. Although these types will be discussed separately, they are most often used in combination and are selected based on considering the following questions:

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A. What is the target level of the change? Organization? Workflow? Individual?
B. What is the purpose of the change? Improvement? Innovation? Transformation?
C. What are the training outcomes for each group of employees affected by the change?
D. Which organizational characteristics might affect the training, such as availability of employees, organizational structure, organizational culture, location of employees, or timeliness?
E. What intervention characteristics might affect the training, such as the specificity of the change goals, availability of consultants, and availability of change sponsors.

Hierarchical. Perhaps the most common type of cascade training whereby the training follows the vertical structure of the organization, usually starting with upper management levels and moving downward through the ranks of employees. For example, the insurance company used a hierarchical approach starting from the CEO and executive committee to senior managers to managers and supervisors to frontline employees. Another approach to hierarchical cascade training can proceed from the lower employee levels of the organization upward through to the executive levels. For instance, consider the case when a production team in a manufacturing plant implements an initiative on their own that results in improved performance, which is then recognized by senior management as something that should be adopted by others throughout the organization.

The hierarchical approach to cascade training ensures that everyone organization-wide understands the change and addresses three issues related to employee competence:

1) Which tasks to keep doing;
2) Which tasks to stop doing; and,
3) Which new tasks to begin doing.

Process. This type of cascade training follows the chain of cross-functional relationships of suppliers and customers on a business process. For example, if a corrective action team at one station of a hard-disk producer improves how an operation is done, then the stations before and after should be aware of the changes, so that they might make any required adjustments. It ensures that whenever change occurs in one part of the process, others become aware of it and acquire the areas of competence necessary to respond accordingly. Another example would be the product to market process, which encompasses researchers, engineers, and designers, as well as operations and marketing personnel.

Role. This type of cascade training follows peer relationships. For example, it might be advisable to have managers train other managers across the organization on how to deliver a performance appraisal interview to subordinates. Another example would involve team leaders training others who are about to lead teams in another part of the organization. Such an arrangement makes use of the particular insights that only those in a particular role might have in adjusting to the new task. It ensures that individuals understand the change from a credible source and have the competence to respond accordingly.

Project. This type of cascade training follows the interconnections of groups, both internal and external to the organization, who are working in achieving a goal. One common example involves the use of the same software package by all members of a project group. This situation requires all of the project team members to obtain and learn how to use that software. In another example, the various groups involved in the roll-out of a new product line need to know about changes occurring in one group, say, the restructuring of the marketing function. It ensures that the stakeholders understand the change, even though not all groups will be affected by it to the same extent.

Implications for Human Resource Development Research

Unfortunately, few if any research studies have studied the institutionalization of change process in general and its relationship with human resource development research. The convergence of the two lines of research – institutionalization of organizational change and human resource development – suggests four possible areas of future research.

First, given the proven efficiency of planned training in the workplace (Jacobs, Jones & Neil, 1992), research questions could be posed whether this efficiency extends to its use as part of cascade training as well and whether this efficiency results in more rapid change. The pace of organizational change dictates that critical change information be disseminated quickly. It could be hypothesized that through cascade training, change could be implemented more quickly. The rationale would be that more employees could be trained in a shorter period of time, without the delays caused when waiting for groups of employees to be scheduled to come together at one location.

Second, research questions could be posed about the perceived relevance and quality of the change information to the trainees. It could be hypothesized that since cascade training focuses on the areas of competence for each employee level, employees would receive the information appropriate for them, since some of the information would be irrelevant and not related to their job expectations (Jacobs, 1994). The issue of how to connect employee expectations with broader organizational goals would be addressed in this way.

Third, research questions could be posed about the levels of employee commitment as a result of the cascade training. It could be hypothesized that since employees would have more relevant knowledge about the change, and that issues could be immediately addressed by a credible source through cascade training, there would be greater understanding of the change and, by extension, greater employee commitment to following it. The issue of employee commitment – that is, ensuring the match between employee intentions and actual behavior – has been a continuing issue of concern in the organizational change literature.

Finally, research questions could focus on the effectiveness and longevity of the change initiative. It would be hypothesized that with increased competence, more relevant knowledge, and greater commitment, the change initiative would become more institutionalized. Thus, studies such as the ones by A.T. Kearney (1999) would find an increased percentage of change efforts that were viewed as being successful.

Conclusion

How to ensure the long-term persistence of organizational change has become an issue of concern for many organizations. If the persistence of organizational change depends in large part on employee competence, then human resource development research would seem to play an important role in further understanding this phenomenon. Until now, the HRD literature has provided few if any studies focusing on the institutionalization of organizational change. Given the proven the nature of human resource development to improve organizational performance, such attention now seems warranted.

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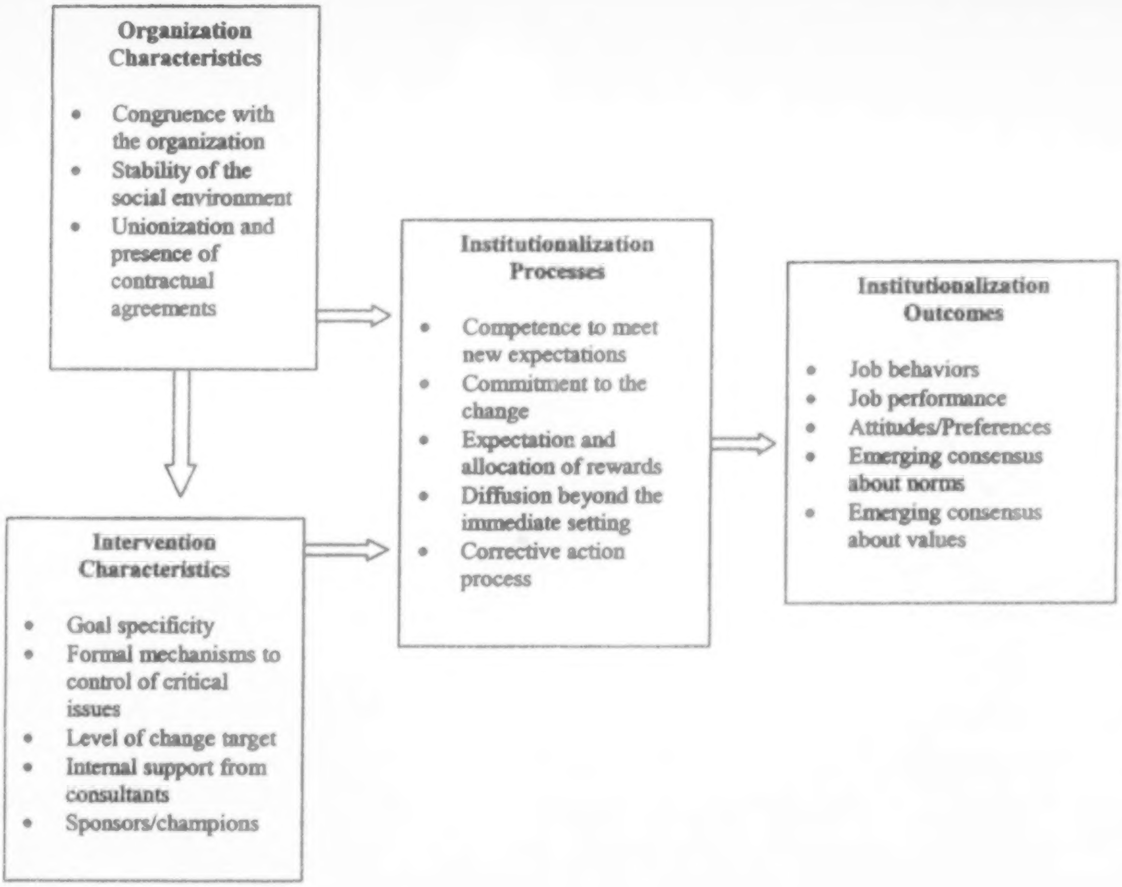
Figure 1. A Framework for Institutionalizing Change


Organization Characteristics
Congruence with the organization
Stability of the social environment
Unionization and presence of contractual agreements
Intervention Characteristics
Goal specificity
Formal mechanisms to control of critical issues
Level of change target
Internal support from consultants
Sponsors/champions
Institutionalization Processes
Competence to meet new expectations
Commitment to the change
Expectation and allocation of rewards
Diffusion beyond the immediate setting
Corrective action process
Institutionalization Outcomes
Job behaviors
Job performance
Attitudes/Preferences
Emerging consensus about norms
Emerging consensus about values

Shock to the System: Analyzing Organizational Change Using the Construct of Awareness Development

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Awareness development is a construct for describing the changes that occur in an individual due to life transitions. The cycle of awareness development (CAD) model is helpful for analyzing an individual's awareness development regarding a transitional issue. This study shows that by using CAD to examine individual employees' awareness development around an organizational transition issue it may be possible to take a distributed view of organizational-level change.

Keywords: Organizational Change, Organization Development, Adult Development

Awareness development is a construct for describing the changes that occur in an individual as he or she is "shocked" by life transitions (Kormanik, 1999). The transitional issue inducing awareness development may be anticipated (e.g., marriage, graduation) or unanticipated (e.g., sudden illness, job layoff). It may be positive (e.g., adopting a child, starting a new job) or negative (e.g., substance abuse, death of a loved one). Regardless of the issue, the transitional change and its associated awareness development is an integral part of every adult's experience, yielding cognitive, psychosocial, and behavioral effects. Kormanik describes a five-stage cycle of awareness development (CAD) model drawing from multiple disciplines, including adult development and learning. The CAD model is helpful for analyzing an individual's awareness development regarding a transitional issue, understanding differences in individuals' reaction to the same transitional issue, and planning interventions that support individuals' awareness development through the cycle. Movement through the model is evidence of adult development and learning.

Similarly, through the course of any organization's existence it experiences various transitional issues that effect organization development and learning. Issues inducing a shock to the organizational system may include planned change initiatives (e.g., downsizing, reorganization) as well as unanticipated events (e.g., workplace violence, a class action lawsuit). The issue may be obvious and discrete (e.g., merger with another organization, new product launch) or subtle and chronic (e.g., attention to workforce diversity, process improvement). As with individuals, the CAD model may be helpful for analyzing organizational awareness of the transitional issue, understanding changes in reaction to the issue, and planning organizational interventions that support awareness development.

The purpose of this paper is two-fold. First, it describes application of the CAD model at both individual and organizational levels. Second, data collection and analysis from a training initiative provides empirical evidence demonstrating the practical utility of using the CAD model to take a distributed view of organization-level change.

Problem Statement

Indisputably, the contemporary work environment has experienced wrenching change in recent years. Many authors describe the deep and profound catharsis associated with organizational change (Abrahamson, 2000; Mishra, Spreitzer, & Mishra, 1998; Scanlon & Fredman, 2000; Volpe, 1999). Even organizations that have not gone through substantial planned changes such as downsizing or reorganization have been forced to adapt their mode of operation to a dynamic, ever-changing, unpredictable, and sometimes ambiguous external environment. In the effort to explain, predict, and control organizational behavior in response to organizational change, emphasis has been placed on critical reflection (Brooks, 1999), informal learning (Volpe, 1999), "tinkering" and "kludging" (Abrahamson, 2000), preserving morale (Mishra et al., 1998), using the manager-as-trainer approach (Watkins, Ellinger, & Valentine, 1999), developing emotional capability (Huy, 1999), and encouraging extrarole efforts (Morrison & Phelps, 1999). A consistent overarching theme has been the movement toward organizational learning that promotes successful navigation of change (Schwandt & Marquardt, 2000).

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Organizational change theory generally reflects two conditions: steady progression through an organizational change effort, or failure of the change effort (i.e., this is what went well resulting in successful change or this is what went wrong resulting in failure). There is a paucity of theory addressing all aspects of the change process itself, particularly taking into account those organizations that stall in the change process; those that do not emerge triumphantly or fail miserably, but instead exist in an "encounter" stage of awareness confusion. The organization understands the transitional issue, has encountered the shock to the system, but has not yet developed strategies for navigating through the shock. Also, while assessing the amount of change has consistently been an area of focus in organization development (OD) interventions, the need for diagnostic tools and measures for assessing the amount of change remains an issue.

Research Question

The primary research question guiding this study was: What is the practical utility of using the CAD model for analyzing change at both the individual and organizational levels?

Theoretical Framework

The management literature provides many examples linking the individual and organizational levels of analysis. Robbins (2000) makes a fundamental case by defining organizational behavior as the study of individuals' attitudes and actions so as to understand, predict, and control individuals' behaviors in the organizational context. Huber (1991) provides a thorough discussion of the contributing processes and the literatures linking adult learning theory with organizational learning theory. Callahan (2000) demonstrates a linkage similar to that described in this paper in a study using emotion work actions by individuals to take a distributed view of organization-level phenomena.

Application of the process of awareness development at the organizational level emerges from the concept of organizations as social systems (Parsons, 1951), where making meaning tends to be done through the social interaction of individuals (Mezirow, 1985). The construct of awareness development parallels the process of making meaning, with the process yielding cognitive, psychosocial, and behavioral effects. At both levels of application, the focus is on change, evidenced by development and learning. The following section provides an overview of the construct of awareness development.

Awareness Development

The construct of awareness development is grounded in the adult development and psychology literature, particularly life transitions (Kormanik, 1999). Life transitions occur when "an event or non-event results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behavior and relationships" (Schlossberg, 1981, p. 5). When two individuals are confronted by a transitional issue, they will likely differ in their perception of the issue based on their perspective or meaning schema (Schon, 1987). Central to the construct of awareness development is change in perspective or meaning schema. Awareness development reflects making new meaning or sense out of the transition experience because old mental models no longer apply.

Life transitions should be developmental. Similarly, awareness development comes from knowledge (i.e., learning) and experience (i.e., change). Depending on the specific issue, however, some individuals may progress rapidly in their awareness development and some might stagnate at an early stage. Schlossberg (1981) shows a life transition as a form of crisis and the concept of adaptation to the crisis is central to the transitions theoretical framework. "Every crisis presents both an opportunity for psychological growth and a danger of psychological deterioration" (Moos & Tsu, 1976, p. 13). Unless the crisis issue is addressed, awareness development may stagnate. Growth may be impeded. Deterioration may result.

The CAD model helps describe the transitional change process of awareness development through five stages: pre-encounter, intellectualization, encounter, empowerment, and integration. The cycle repeats for each transitional issue. Individuals generally progress through the stages of awareness in sequence, but progression may vary substantially from individual to individual even when both are confronted with the same transitional issue. Movement to the fifth stage in the CAD model does not mean the individual's cognitive and psychosocial development are complete. The process of awareness development is not static. It is a dynamic, repeating cycle. The individual will remain at integration only until the next issue comes along. The individual may have already reentered the cycle around another transitional issue. The ideal is that progression through successive iterations would benefit from the cognitive and psychosocial effects gained in earlier awareness development cycles. The following five sections provide an overview of each stage in the CAD model, with theoretical foundations coupled with practical examples. Each section begins with a discussion at the individual level and closes with a discussion at the organizational level. The examples are drawn from 20 years of practice in individual counseling and organizational consulting.

Pre-encounter

Rokeach (1968) defines attitude as "a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner" attached to cognitive, affective, and behavioral components (p. 112). When the individual has no cognitive, affective, or behavioral experience with the transitional issue, the individual is at the pre-encounter stage of awareness development. The individual has no attitude or perception of the issue in terms of self or others (e.g., a man gives a cursory glance at the newspaper headline reporting that a woman was assaulted in the neighborhood but does not read the article because it has no meaning for him). The individual has not actually experienced it or recognized it in relation to others. From an epistemological perspective, the issue is not a part of the individual's world view (e.g., a White male who has no concept of racial discrimination). Given this state of awareness development, the individual would not be cognizant of the issue even though it may be quite evident to others. The pre-encounter stage is shown in the older gentleman who does not see the need for attending mandatory sexual harassment prevention training because, "There aren't any women in my shop." Sexual harassment has no relevance in his world.

An organization in the pre-encounter stage similarly has no awareness of or experience with the transitional issue. The public sector agency that historically did not have to respond to the market because its focus was not on a profit margin was in pre-encounter around customer service (e.g., pre-1990s Internal Revenue Service). The pre-IPO high-tech start-up that, in its preoccupation with developing a product, has no awareness of the need for developing and implementing policies and procedures for managing its human resources.

Intellectualization

Bronfenbrenner's (1979) work on the effect of social and cultural factors on adult development suggests that those closest to the individual are going to have the most impact. The role of context literally forms you. Schon (1987) further suggests that the situation frames the learning. In a situation that does not present, focus on, or involve the individual with the issue, their stage of awareness development would be pre-encounter. Cognitive development starts as the situation begins reflecting the issue. In the CAD model, as the individual's situation reflects the issue, the individual moves from pre-encounter into intellectualization.

The individual begins to recognize the issue, yet there is little or no emotional involvement. Intellectualization creates a sense of invulnerability. The White male moving into the intellectualization stage begins to understand that workplace discrimination occurs, yet thinks that if he works hard and keeps his nose clean he will steadily advance up the corporate ladder. The older gentleman intellectualizes that sexual harassment might become an issue if a woman were to enter his work group, but thinks he doesn't need to worry about it till then.

The individual in intellectualization spends a great deal of time on mental gymnastics, repeating a pattern of single loop learning and enjoying the intellectual discourse on an issue that does not really affect them. Argyris' (1982) description of single loop learning focuses on cognitive development using existing routines and mental models, causing self-reinforcing patterns rather than developing new solutions for presenting issues. The individual in intellectualization recognizes the issue as a function of what happens to others, often rationalizing the occurrence of the issue as warranted. After reading the newspaper article about the woman being raped, the man in intellectualization wonders why the woman was stupid enough to go out at a late hour by herself, then turns to thinking about the neighborhood property values going down because of the increase in crime.

Single-loop learning also plays out at the organizational level, in tandem with first-order organizational change. "First-order change is incremental and convergent. It helps firms maintain reliability; it may involve adjustments in systems, processes, or structures, but it does not involve fundamental change" (Newman, 2000, p. 604). Any organization operating with an "if-it-ain't-broke-don't-fix-it" or "we've-always-done-it-this-way" attitude is operating in the intellectualization stage. Existing mental schema and organizational routines remain unchallenged. This echoes Cook and Yannow's (1996) view of change without learning. Organizational inertia impedes development (Newman, 2000). The intellectualization stage is evident in the rational cognitive approach to organizational learning (e.g., put out a new policy or procedure and the problem will be fixed, put the new organizational structure in a formal organization chart and the reorganization will be complete).

Intellectualization at the organization level reflects Huber's (1991) stipulation that gaining knowledge does not necessarily imply learning. The organization that sees the experience of its competitor, yet the competitor's experience has no meaning to the organization. For organizational learning to occur, the knowledge must be translated into usable information that changes the range of potential behaviors. The monolithic corporation demonstrates this aspect of the intellectualization stage when it pays no attention to lesser competitors because it "owns" the market (e.g., IBM at the time of Apple's entry into the PC market).

Encounter

Encounter, the third stage of awareness development, begins when the individual has the primary experience with the issue. This may be sudden or it might be a gradual slide. The earlier example of the man who intellectualized about property values declining because of neighborhood crime suddenly moved into encounter when his wife was forced to go out at night to get milk for their colic baby and was raped in the poorly-lighted store parking lot. The individual might slide into the encounter stage after an extended, low-level exposure to the issue. One woman, the first female engineer in the organization for which she worked, suggested, "It's not the big things in life that get you down. It's the constant barrage of little things that erode your confidence and make you wonder if it's all worth it." Pearlin, Lieberman, Menaghan, and Mullan (1981) stipulate:

> "Hardships that are an enduring testimony to one's lack of success or to the inadequacy of one's efforts to avoid problems would seem to pose the most sustained affront to one's conceptions of self-worth and of being in control over personal destiny....It is the abiding problems to which people can see no end, those that seem to become fixtures of their existence, that are intrinsically uncongenial with positive self-concept" (p. 346).

The individual in encounter has total and extended immersion in the issues, resulting in intense emotional involvement (i.e., "rage stage"). The individual often perceives his or her social power has been threatened, eroded, or taken away. The feeling of powerlessness and loss of control are paramount in the "valley of despair" of encounter. Gurin and Brim (1984) suggest the need for control is basic to self and describe research showing depressed individuals as hyper-realistic about their lack of personal efficacy. Personal efficacy means "judging the self as capable, as a person able to produce acts that should lead to desirable outcomes" (p. 283). Individuals in encounter perceive their capability is substantially diminished, with the cognitive *and* affective immersion in the transitional issue creating a blindness that inhibits further progression in awareness development and growth.

The organization in encounter might slide into that stage due to performance below aspiration level. Other negative (i.e., unanticipated, coercive) transitional issues include a critical incident of workplace violence or a class action lawsuit. The transitional issue inducing encounter in an organization can also be positive (i.e., anticipated, participative), such as a planned change, a merger or acquisition, or a new venture. An executive at NASA suggested that the agency was still in encounter 15 years after the Challenger explosion, with diminished capabilities rendering the agency unable to recover the risk-taking and cutting edge norms that had been integral to the agency's culture. More recent examples of encounter at the organization level are shown by the recent Ford automotive and Firestone tire manufacturing debacle, the merger of Bell Atlantic and GTE into Verizon Wireless, and the expansion of Amazon.com into new business areas. In all instances, the encounter stage of the CAD model represents a substantial restraining factor (Lewin, 1951), impeding organizational growth and development.

Empowerment

The fourth stage of awareness development is empowerment. This stage includes seeking and finding strategies for securing enough power to make necessary changes while managing risk to self and others. Empowerment requires proactive reflection on experience, where negative judgment is suspended. The individual begins to use his or her discretion in a more rational manner. During the empowerment stage, the feelings of powerlessness and loss of control generated during the encounter stage are reconciled. Individuals begin to recognize the extent of power they have within their span of control and, even if that power is limited, use that power to regain a sense of control.

A significant aspect of the empowerment stage involves enlisting the aid of others through the development and maintenance of support systems (e.g., mentors, confidants, networks). The feedback learning loop that support systems provide fulfills the need for coaching the individual in the empowerment stage. Feedback as a strategy to use in the empowerment stage requires a discourse or dialogue. It serves as the making meaning piece for enabling the individual to move beyond the frustration, anger, and misperception of encounter. Mezirow (1985) suggests this tends to be done socially. Gurin and Brim (1984) identify "attention and processing of social information as the first step in change" (p. 312). Kram (1988) also notes the importance of workplace social systems for supporting individual development and reconnecting an individual experiencing the isolation of encounter.

Much of the research on organizational learning and change focuses on strategies that would be useful for facilitating movement out of encounter into the empowerment stage of the CAD model. These include critical reflection (Brooks, 1999), informal learning (Volpe, 1999), preserving morale (Mishra et al., 1998), using the manager-as-trainer approach (Watkins, Ellinger, & Valentine, 1999), developing emotional capability (Huy, 1999), and encouraging extrarole efforts (Morrison & Phelps, 1999). Hedberg (1981) highlights the need for the unlearning of existing cognitive maps and frames of reference that affect organizational routines before new learning can occur.

Integration

Integration, the fifth stage of awareness development, represents "being whole" (i.e., synergy, synthesis). The individual has regained his or her sense of control. The effects of the issue that precipitated encounter dissipate easily. The female engineer stating, "Like rain off a duck's back, I don't let the pettiness bother me anymore." The individual knows what they do and why they do it as a result of the cognitive and psychosocial development during the preceding stages. The individual is capable of helping himself or herself, as well as others, be effective and successful in their coping and adaptation efforts. For the individual, the cognitive and psychosocial development represented by moving through the empowerment stage into integration represents the growth piece. As the individual moves into integration, the individual has in place new and more effective ways to resolve or at least cope with the issue that precipitated the encounter stage. In integration there is practical application of strategies for moving beyond the crisis of encounter. Sternberg (1985) defines pragmatic intelligence that emphasizes experience and real-world context where problem solving in everyday life occurs naturally. Awareness development through integration is similar to the double loop learning suggested by Argyris (1982). The integration stage correlates to the Jungian (1983) concept of individuation; learning how to operate in alternative, non-preferred ways. Mezirow (1985) describes perspective transformation as a fundamental change in the way the individual views the world, revolution rather than evolution. Movement through the cycle of development to the stage of integration around a particular issue embodies the concept of perspective transformation.

Integration at the organization level represents ongoing adaptive organizational change (Brown & Eisenhardt, 1998) and organizational transformation (Newman, 2000) where change leaves the organization better able to compete in its changing environment. Strategies put in place during the empowerment stage enable the integration stage focus on second-order learning (Lant & Mezias, 1996) or double-loop learning (Argyris & Schon, 1978) involving the search for new routines and schemas. Argyris and Schon suggest double-loop learning is most beneficial when existing routines become ineffective or when new information cannot be understood within the currently accepted schema; conditions fundamental to the encounter stage of awareness development. A consistent theme has been the movement toward organizational learning to promote successful navigation of change (Schwandt & Marquardt, 2000). Second-order learning facilitates second-order organizational change (Newman, 2000).

The construct of awareness development is grounded in *both* change and learning. Organizational learning means "acquiring, sustaining, or changing of intersubjective meanings through the artificial vehicles of their expression and transmission and the collective actions of the group" (Cook & Yanow, 1996, p. 449). Huber (1991) qualifies that behaviors do not have to change to have organizational learning. Instead, a change in the *range of potential* behaviors represents learning. There is also much debate in the literature distinguishing between individual and organizational learning. We adopt Schwandt and Marquardt's (2000) distinction that organizational learning is more than the sum of individual learning, given our focus on both individual and organizational levels in the application of the CAD model.

Methods

Empirical application of the CAD model at the organizational level was demonstrated through a case study of a single entity bounded by time and activity. The site was a government agency responsible for all building and infrastructure maintenance functions of a large, multi-building office park setting. By all accounts, the agency had operated as a traditional hierarchical organization for more than 200 years. Stable, long-term leadership and ongoing funding meant first-order organizational change at best. Employee tenure averaged 26 years, leaving many employees in the aging workforce eligible for retirement. Suddenly in the mid-1990s, the agency had a major transition in senior leadership, compounded by increased questioning of the agency's budget and human resource management (HRM) practices. While serving the customer had always been a high part of the agency's informal culture, doing so within budget had not. A shift toward project management began. Generally accepted HRM policies and procedures were dated to the 1950s, and in some cases were nonexistent. The overhaul of 11 major HRM processes began within a six month time period.

To support the organizational changes, the agency undertook its first-ever basic supervisory skills training initiative. The training was mandatory for all the agency's managers, supervisors, foremen, assistant foremen, and team leaders. This research was completed in conjunction with the three-year training initiative, begun in September 1997 and concluded in June 2000. Twenty-four sessions were conducted during this time period. The difficulty of coping with the multitude of changes occurring in the agency quickly emerged as a barrier to the supervisors' effectiveness. After consultation with agency representatives the curriculum was modified to include a discussion of awareness development, with change itself as the transitional issue.

Subjects were the training participants. As part of each training session, the trainers provided an overview of the CAD model and applied it to several personal and workplace issues. After the overview, quantitative data was collected anonymously by each participant completing a form included in the training materials. The form asked each participant to identify where he or she perceived the organization as a whole, their specific organizational jurisdiction, and themselves in the CAD model around the issue of organizational change. Frequencies for response sets from all participants were tabulated using statistical software. Additionally, analysis of variance (ANOVA) was conducted to compare the means between the first three and last three training sessions. Qualitative data augmenting the quantitative data came from participants' discussion of the agency's level of awareness development around change, as compared to their own individual level. Qualitative data also came from conversations with the HRM division director, the training and development branch staff, other human resources practitioners, and senior management representatives. The qualitative data included first-hand observations from the authors' meetings and telephone logs of conversations with agency representatives. Physical artifacts were examined, including the organization's strategic plan, policy and procedures manual, internal memoranda, and other documents.

Results

Usable data was obtained from 229 participants during 18 of the training sessions. Frequencies of their responses are shown in Table 1. In every session, participants identified that individual employees exhibit all levels of awareness development around the issue of change. Participant responses indicate that there are those who are not aware and do not understand the need for change; those who can intellectualize and understand on an impersonal level the need for change; those who are in "rage stage" around the changes occurring in the organization; those who are developing strategies for adaptation and coping with the organizational changes; and, those who have developed their awareness level to where they can deal effectively with change situations and issues.

Table 1. Frequencies of Participants' Responses In The CAD Analysis Of Change

Stage of Awareness	Organizational	Jurisdictional	Individual
Pre-encounter	14 (06.1%)*	11 (04.8%)	9 (3.9%)
Intellectualization	74 (32.3%)	59 (25.8%)	23 (10.0%)
Encounter	77 (33.6%)	80 (34.9%)	64 (27.9%)
Empowerment	70 (30.6%)	79 (34.5%)	109 (47.6%)
Integration	6 (02.6%)	11 (04.8%)	35 (15.3%)

* Percentages do not total 100% because some respondents identified more than one stage.

In every session, participants also identified that the agency itself exhibits all levels of awareness development around the issue of change in the organization. Participant responses indicate that in some regards the agency does not understand the need for change; that in some regards (particularly mid and senior management) the agency "talks a good game" but really isn't serious about making change; that the majority of the workforce is in encounter around the multitude of changes occurring in the organization; that in some regards the agency is making changes and developing adaptation and coping strategies; and, that in some regards the agency is effectively managing change without any problem.

At the same time, two trends emerge from the data. First, participants perceived themselves as significantly further along in their own awareness development than they perceived their jurisdiction and the organization. The majority of participants saw themselves at integration (47.6%), yet placed the majority of the organization at encounter (33.6%). Second, although not statistically significant, the ANOVA comparison between the data from the first three and last three training sessions showed a discrete overall shift in the means for each level of analysis. The data indicate that individuals, organizational jurisdictions, and the total organization had moved through the CAD; there was a change in awareness development over the three year duration of the training.

Discussion in each training session concluded with participants identifying strategies for moving individually and collectively beyond encounter to integration around the issue of change. Thematic analysis revealed six strategy themes, including: working the underlying issue (e.g., uncertainty, fear and anxiety about change) out internally, getting outside assistance from a third party, putting the issue on hold, taking training, gaining more experience in dealing with change, and taking action to change the situation. This data reinforced individual responsibility and accountability for moving through the CAD model to the integration stage around the issue of change. The data also emphasized the need for employees to provide assistance to, or seek assistance from, others in the workplace, to enable them to reach the integration stage of their awareness development.

Conclusions

This paper presented a model based on the construct of awareness development that was well-grounded in the existing adult development and psychology literatures. It proposed that the model can be applied at both individual and organizational levels. Application of the CAD model at the individual level is oriented toward examining changes (i.e., development and learning) precipitated by life transitions. Similarly, application at the organizational level is oriented toward change precipitated by organizational transitions and the social construction of meaning associated with the transitional change. The empirical results of the study demonstrated the practical utility of using the CAD model for analyzing change at the organizational level. Examination of individual employees' awareness development around the organizational transition issue provided a distributed view of organizational-level change.

Contributions and Implications for Practice

The CAD model provides a useful framework that helps predict, explain, and interpret attitudes and behaviors in application at both the individual and organizational levels. The framework provided by the CAD model may be helpful in a variety of organizational settings to analyze discrete perceptions about organizational transition issues, as well as assess progress made in transforming an organization toward a desired state through an OD intervention. The model may suffice as a diagnostic tool and measure for assessing development in certain OD interventions.

The CAD model also has utility for application as a diagnostic measure for practitioners. For example, the work group that goes into encounter when there is a critical incident of violence in the workplace, or the workforce that goes into encounter after. The practitioner can develop programs for increasing awareness about workplace violence to move people out of pre-encounter and assist in proactive intellectualization (i.e., promoting cognitive development). Critical incident teams can be set up to assist employees in encounter. A plan can be put in place with strategies for moving employees out of encounter, through empowerment, to integration.

Practitioners must be ready to assist employees and management in moving through the cycle, while recognizing that some work groups and individual employees will need additional help in moving beyond encounter. Diversity training programs, for instance, should focus on moving employees out of pre-encounter with workforce diversity issues by enhancing understanding of what coworkers might be going through as a result of their diversity. Practitioners should recognize that confrontational diversity awareness training may force individuals into encounter (e.g., White males). While this training method may be appropriate, the training design must also move the individuals out of encounter into the empowerment stage via skills building and development of support systems.

Limitations and Areas for Further Study

This study was limited in several ways. It was an analysis of one organization at one point in time. The self-reported data were derived from asking members of the organization about their perceptions. Although the responses were anonymous, the survey instrument was completed as part of a mandatory training initiative. Respondents were limited to one segment of the organization's population. Lastly, there was no distinction between ineffective and effective change or between planned versus unexpected change as the transitional issue.

The construct of awareness development is ripe for additional empirical study demonstrating transition through the cycle at the individual, group, and organizational levels of analysis. While this paper has shown that the CAD model provides practitioners with an organizational assessment tool, its utility should be explored further. Both qualitative and quantitative analyses of the stage of awareness development the organization is at in the CAD model can be determined through the collection of discrete and longitudinal data examining change in awareness development over time. Comparison of awareness development around the same issue in a variety of organizations would be beneficial. We need more compelling arguments regarding the cycle, particularly the variables that affect progression through the cycle. Cause/effect of awareness development should be explored (i.e., if an individual claims to be at integration, how has his/her behavior changed since being in encounter; if an organization claims to be beyond intellectualization regarding the transitional issue, how is this manifested in organizational performance?). A last suggestion for more research centers on the level of immersion in the encounter stage. One aspect of level of immersion is repetition of encounter around the same issue (e.g., examining the organizational stress of a constant state of change, upon change, upon change). Much remains to be done before the practical utility of the concepts presented in this paper can be fully realized.

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Connotative Meanings of a Change Agenda

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The corporate office of a large manufacturing organization had launched a major change program in its five plants. Though a common approach had been worked out, a study conducted eight months later showed that the different plants had followed different problem solving approaches, and reached different outcomes. The paper presents this case, and excmines how units develop connotative meanings of a change agenda, and how these meanings influence the effectiveness of change implementation.

Key Words: Change Implementation, Organizational Decision Making, Internal Customer Satisfaction

We can understand some of the challenges in the effective implementation of organizational change by taking an example of a specific change program. Let us consider the introduction of a change program based on the Internal Customer Satisfaction (ICS) model. According to the ICS model, each department or section in an organization has some "internal customers" to be satisfied. For example, in a steel plant, the blast furnace supplies pig iron to steel-melting shop, or the outputs of the hot rolling mill constitute the raw material supplies for the cold rolling mill. In a steel plant, therefore, steel-melting shop is an important internal customer of the blast furnace. In a similar vein, the hot rolling mill is responsible for keeping the cold rolling mill, one of its key internal customers satisfied with regard to quantity, quality, and timeliness of supplies. A service function like the accounts department would have several internal customers like the top managers, different line managers, and so on. It has the responsibility to meet, for example, the line managers' expectation of accurate and timely cost information on important organizational aspects.

The ICS model aims at getting each department to identify all its key internal customers, understand their requirements, views and ideas by effectively negotiating with them, and then work out departmental goals and actions to enhance the satisfaction of internal customers. The ICS model states that in a large organization with several departments, this process enhances inter-group integration, and if actions are taken to satisfy internal customers, it would increase the satisfaction of the external customers. When it is applied properly, ICS is a major organizational change program or intervention to improve co-ordination and responsiveness within the organization.

Coping with Complex Problems

Implementation of organizational change agenda poses a number of problems to the managers, which have been variously described in literature as ill-structured, non-programmed, wicked, or complex (Ackoff, 1979; Dearborn & Simon, 1958; Doerner, 1996; Newell & Simon, 1972; Ungson, Braunstein & Hall, 1981). Such problems present several difficulties to decision-makers. There is, often, lack of consensus and clarity on what the problem is, what the preferences and goals are, and on the pathways to reach the destination. There are multiple stakeholders with conflicting interests, and changes tend to occur in different aspects of the problems, preferences and interests over time. Doerner (1996) outlines three key characteristics of these problems: complexity, uncertainty, and changes over time.

Complexity. A complex system has several interdependent elements. Given the multiple links in the system, the organization cannot afford to pay attention only to one or two aspects and ignore the others. Decisions and actions in one part affect other parts of the system, and so actions in complex systems have side effects and long-term repercussions that are important to anticipate and guard against. Level of engagement with the problem is an important determinant of complexity. Based on whether the problem evokes interest or whether actors give up trying to solve the problem, complexity perception goes down or up (Bronner, 1986). If the managers feel oppressed by being made to go through a change program that is not relevant at all to their needs, complexity perceived to be

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high. On the other hand, if a group of managers are attracted by the possibility of using the program to make improvements, it contributes to a reduction in the complexity.

Uncertainty. The decision-makers do not have the luxury of having all the information about the situation that they are confronted with. They cannot be sure of how their actions would influence the system. There is no way of precisely estimating the relative impact of each of their actions at the start. It is almost as if the managers have to develop a reasonable understanding of the system to be able to act, but have to develop that understanding by watching the situation, at best, through frosted glass. Bronner (1986) states that factors like non-transparency and information load present certain difficulties. The decision-makers may have limited information on the situation that they have to address. There may be a number of unanswered questions: Would a directive model be more appropriate for implementing change? In an ICS change program, what should be the nature and scope of inter-functional issues that should form the focus of negotiations? Should the exercise be restricted to the manufacturing departments? Would inclusion of service functions enrich the program, or would it complicate matters? The key actors are required to make decisions on these aspects on the basis of their vision of the future, which may be shadowy, blurred, partial, and unclear. Uncertainty also arises from imprecise and inadequate information. The expectations from the change agenda may be neither shared nor clear and consistent. Added to the problem of multiple preferences is the uncertainty of how to gain agreement on goals, and time frames for achieving intended priorities. Uncertainty also results from lack of clear criteria for assessing performance and the approaches available to deal with problem situations. This includes difficulties in assessing quality of solution, work satisfaction, and group satisfaction.

Changes Over Time. The decision-makers are not presented with static and secure reality. They confront a dynamic situation, in which preferences do not remain stable and unchanged. Preferences or choices of decision-makers are also affected by the choices they control. It is not sufficient, therefore, to analyze a situation just at a single point of time. Managers must attempt to determine where the whole system is heading over time. The decision-makers are preoccupied with several routine and non-routine matters. Implementation of a change program is just one of the several concerns of the key decision-makers. The limited attention and time available generates its own pressures and stress, as changes also occur in the larger context of the units.

As March (1988) points out, decision making in the domain of complex, uncertain and dynamic problems involves interpretive activity, where the concern of the managers is with examining how decisions fit into efforts to establish individual and social meaning. Research indicates that there are broadly six areas where this interpretive activity is critical for problem-solving effectiveness (Doerner, 1996; Doerner & Schaub, 1994; Doerner & Wearing, 1995).

Defining the Goals. Goal formation is not completed before problem-solving activity begins (March, 1988). Human choice behavior is at least as much a process for discovering goals as for acting on them. Even if the overall goal is set, say as effective implementation of the ICS change program, it still needs to be broken down into sub-goals. This would involve identification of the factors that could influence the overall goal, and understanding how these factors fuse to help achieve the final goal.

Forming a Mental Map of the Situation. A clear mental image of the system to be managed will help estimate effects or outcomes of decisions. Decision-makers, therefore, have to develop a map of the different factors that make up the system, and collect information about the current state.

Predicting the Future Development. Decision-makers need to make interpretations of the possible future to take concrete measures and decisions in the present with a degree of confidence. This necessitates collecting adequate information on the present state of the system, and on significant external developments.

Planning Actions. Having developed some interpretations of the structure of the system and possible future developments, the next logical step is to plan the actions. The complexity of the planning process would depend on the number and nature of actions that influence the system.

Monitoring the Effects of Actions. When a certain course of action has been chosen and implemented, monitoring the effects becomes crucial. In complex systems, there could be considerable lead-time before the effects of an action may be apparent. This makes the task of interpreting the feedback a challenging one.

Monitoring Own Behavior. Complex problem solving is not just an intellectual process, but involves emotions, values and motivation. It is, therefore, important for decision-makers to reflect on their own processes of problem solving and working together. Without this self-reflection, there is a grave danger, for example, of the decision-makers remaining entrenched in a futile course of action without making mid-course corrections.

Research Problem

The manufacturing units in traditional industries are designed to perform largely structured tasks in a fairly stable environment. To achieve performance in a reliable and efficient way, they are built around clear lines of command, communication, co-ordination and control. For such organizations, the task of implementing an organizational change program is an ill-structured problem. It is, therefore, possible to study change implementation by using the complex problem solving perspective, and explore the following questions: How do such organizations handle the interpretive activity in the six areas outlined above? How do they make sense of the different elements of the change agenda? How do decisions emerge? What factors lead to effective or ineffective implementation of change? Can the evaluations of errors, pathologies, and failures in problem solving behavior be utilized to throw some light on organizational decision making?

Data Collection

An opportunity to explore the above research questions emerged after one of the largest manufacturing organizations of India with multi-unit operations spread across the country, had introduced a change program based on the ICS model. The change program had been introduced in five major plants located in different towns. Each unit was an integrated steel plant having 20,000 to 50,000 employees working in several departments and sections. The five units were largely similar in terms of technology and products. The units were government-owned traditional manufacturing organizations. Having functioned for long years in a regulated and protected environment, the organizations were quite bureaucratic in their approach, and had fairly centralized management control. An Executive Director headed each unit.

A staff function at the corporate office had taken the initiative to introduce the ICS change program. The staff function had done elaborate preparatory work to compile program-related materials, and had followed it up with workshops at the central management training facility. A cross section of senior managers from different units had attended the workshops before the formal launch of the change program.

Eight months had elapsed since the ICS program had been formally introduced. During this period, the corporate office had not really followed up the change program. But informal feedback had indicated that the five units had approached the change implementation very differently, and achieved very different outcomes. The organization agreed to have an outside researcher to conduct a study of the process of implementation followed by the different plants, and examine the results achieved by each plant. Two HRD specialists from the corporate office joined the research team.

The implementation of a common change agenda in five units, which were similar in many respects (similar technology, products & size, and same parent organization) provided a natural setting to make comparisons. It was decided to use the complex problem solving perspective to study the change implementation process, and explore the broad questions discussed in the earlier section.

While a number of frameworks are available for studying the change process, the present inquiry utilized the problem-solving framework to gain some insights on organizational decision-making. The weakness of the chosen methodology is that it does not lend itself to developing and testing hypotheses. It was, however, expected that the rich case descriptions would help in developing interesting insights that could be explored in future research to determine their validity and general application.

The research team initially collected all the relevant documents from the different units. This included: the memos/ circulars sent by the corporate office on ICS model, readings handed out during the training workshops, minutes of meetings of ICS change program implementation, copies of presentations made within the plant, and the reports sent by the units to the corporate office. The review of documents was followed by interviews with key actors from different locations, functions, and levels. The interviewees included key departmental heads, and concerned managers from service functions and operational levels. A minimum of 16 and a maximum of 22 managers were interviewed from each plant. Each interview lasted an average of about 90 minutes, and tried to gain an understanding of what was done or not done at different units.

On the basis of interviews and study of relevant documents, a case description of the implementation process in each of the plants was put together. The researchers, then, identified certain themes or patterns underlying each plant's approach to ICS change implementation, with a view to examine the similarities and differences among the plants in their problem-solving behavior. Table 1 provides a summary description of the change implementation process in each of the five plants. The underlying patterns identified by the researchers have been presented in the third column.

Table 1. Description of the Change Implementation Process

Plant No.	How Change was Implemented	Themes/ Patterns underlying Plant's Approach
1	- No explicit process for identifying internal customers and suppliers. Only production linkages considered in identifying internal customers and suppliers. Service departments not considered for inclusion in change program. - The head of the unit (ED: Executive Director) actively involved in sorting out problems and differences between interacting departments. - A formal memorandum of understanding (MOU) worked out by departmental heads, and circulated up to middle management. - A few interesting and innovative initiatives emerged at departmental level, such as - (a) wider participation, (b) explicit linkage of agreements to key performance indicators and (c) initiation of monitoring systems to make mid-course corrections. But these were not diffused to other parts of the organization.	- Attention restricted to obvious issues. Ambiguity inherent in change ignored. Assumptions not questioned. - No adaptation of change to fit specific requirements. Scant attention to details. - Excessive reliance on formal arrangements, hierarchical referral, signed agreements. - Change agenda seen as preparing *"summit agreements"*.
2	- Exercise restricted to the departmental heads and a few other key personnel. - After preliminary bilateral discussions, key managers met in the ED's office to arrive at the final decision. There were four factors that kept the level of differences low. (1) Customer kept their expectations/ demands low keeping in mind supplier department's weaknesses and problems. (2) The directive to reach agreement was taken as a signal to compromise. (3) Departmental heads wished to avoid 'unpleasantness' in front of the ED. (4) Deliberations were kept at a general and conceptual level, and the difficulties in translating principles to practices were avoided. - Service departments were involved only when it was considered necessary. They exercised little or no influence. - Decisions written up as minutes of the meeting and circulated only to key managers. The other managers had no idea of what was discussed and agreed upon.	- Change program seen as mechanism to reach agreements on inter-functional issues. The idea was to try whatever was possible, without pushing too hard. So demands were left at a general level. It was left to the key managers to follow up in a manner that they considered appropriate. - Articulation of demands/ expectations, communication of change, formulation of action plans and monitoring were all done informally. - Change agenda intended to be a *"painless process"*.
3	- Managers with good process skills and credible image appointed as change facilitators. - A staff department was asked to prepare guidelines and formats, agenda to be covered during negotiation, aspects to be covered in presentations, nature of action planning process to follow, etc. Model recommended by the headquarters was extended and modified. Inputs from line departments were sought during this process. - Service departments and people at operations level were	- The approach recognized the need to adapt change to plant's requirements and considered systematic reflection was necessary for the purpose. - Designs and processes were instituted to deal with ambiguity and uncertainty posed by change. Demands of the change were

	actively involved. - ED chaired the initial meetings with process facilitators and key managers to discuss overall priorities. There were also monthly review meetings for monitoring and mid-course corrections. - Final action plans were widely circulated. A few departments obtained external help to sort out some persistent problems. The exercise led to some dramatic improvements.	understood, and individuals and groups with relevant expertise were involved. Willingness to receive help indicated positive attitude to change. - Change agenda seen as *"opportunity for improvement and innovation"*
4	- The change program was first discussed in the meeting of the heads of departments. There was confusion in formally defining "customers" and "suppliers". It was felt that every department was both a supplier and a customer in some sense. So it was finally decided to have a multi-lateral negotiation of all the departments in one forum. - As the annual planning cycle had been completed, decision was taken not to re-open quantity and quality issues. The ED proposed that the group attend to cost reduction issues, and this theme was accepted. - Two meetings of all the departmental heads were held, and some points were discussed for cost reduction. As the ICS guidelines prescribed the involvement of people at operational level, there was a large gathering of 200 people when a few departmental heads presented these points. There was no discussion after the presentations. Most of the people who attended the meeting considered it as "just another routine affair". - Copies of the transparencies used for presentation were sent to the headquarters as outcome of the ICS exercise. There was no follow-up afterwards.	- The approach ignored the inherent ambiguity and arrived at a superficial definition of change agenda. - The plant leadership used the 'ICS' label, but pursued another goal that it considered worthwhile. The process followed had none of the features of the ICS model. - A "work-to-rule" approach was followed in implementing change. Work-to-rule conforms to the letter of the law, but destroys the spirit, and thus derails the process. - The meeting of change agenda that emerged was that it was just a "*label to fit an available solution*".
5	- The plant faced some serious business problems. There was a major resource crunch, and a number of projects and activities had been put on hold. So there was no enthusiasm for the change program. - In the initial discussion, a member proposed that supplier departments could only give "conditional commitment" as necessary resources may not be made available to the concerned supplier department. The ED accepted this. - As all the supplier departments faced problems of resource crunch and indicated that they could only give conditional commitment, no meaningful negotiations took place between departments. - The final document was compiled by a staff department which listed all the requirements of the customer departments and the resource requirements of the supplier departments. There was nothing new in the document. It was sent to the headquarters and the chapter was closed. - A manager's comment captured the underlying sentiment: "How can we talk of responsiveness to internal customers when we don't even know whether the unit is going to survive tomorrow?"	- As the plant was going through a struggle for survival, the main concern of the decision makers was to avoid being on the receiving end of criticism for not taking up improvement opportunities. - The key managers did not see any relevance of the change program, but did not want to voice their opinion openly. There was no ownership of change. The idea of "conditional commitment" was discovered to get over the exercise quickly. - The change program was seen as another hurdle to be dealt with. The meaning was that it was a "*senseless ritual*" that had been imposed by the corporate office.

Discussion and Conclusions

Factors Influencing Connotative Meanings

While ICS program had certain purposes and explicit meanings for those initiating the change agenda, it had inherent complexities and ambiguities for the plant decision-makers. A problem has a number of subordinate problems. For example, the problem of ICS program implementation has the subordinate problems of determining the scope of the program in a unit faced with severe business constraints, deciding on the appropriate mechanisms for involving people at operational level, or creating shared need for change among key actors. Each of these subordinate problems required a thoughtful interpretation and response.

Faced with the ambiguities and complexities of the change program, decision-makers in plants tend to arrive at different meanings based on three sets of factors. (1) To which field their vision was limited; (2) Which phenomena included in the field were actually perceived; and (3) Through which filter woven by cognitive base and values, are bits of information selected put through? (Hambrick & Mason, 1984). We may refer to these three factors as the mindset of the key managers, their control panel, and their processes. We discuss these aspects below.

Mindset of Key Managers. The mindset determines how attention is allocated. Plant 3 took efforts to ensure that it focused its energies on the appropriate fields of endeavor, and it planned to continue to focus on those aspects over time But there was no such clear focus in Plants 1, 2 and 4, which exhibited low capacity to tolerate uncertainty. By restricting the exercise to certain levels and departments, these plants made it difficult for certain issues and concerns to receive attention.

Control Panel of Managers. The decision-makers seem to work with a 'control panel' with a number of dials, each providing signals from the system about developments in a given area (Ramnarayan, Strohschneider and Schaub, 1997). The control panel helps decision-makers in efficiently keeping track of different aspects. But once the control panel is in place, it influences not only what the group consistently pays attention to, but what it also consistently ignores. For example different plants considered different aspects of the system in their decision-making process. While ICS program was reduced to a multilateral negotiation on cost reduction in Plant 4, Plant 3 paid attention to the agenda to be covered, guidelines and formats, nature of action plans to be worked out, facilitation of meetings, monitoring, and so on.

Decision-making Processes. Decision-makers also differ in the ways that they deal with the signals that they pick up. Each unit develops its own decision making processes, and so differences develop, for example, in choosing actions or making mid-course corrections. Some decision-makers took different aspects of the change agenda at their face value. They asked very few `why' questions to find out the causal links behind events. For example, the issue of including or excluding service or operations people was treated as a choice that was independent of other aspects of the change program. On the other hand, Plant 3 had a task force to prepare a rough blueprint for implementation, and discussed the key choice points in meetings. The task force was asked to propose some concrete measures, and the meetings explored the fit between these concrete measures and the abstract ideals of the ICS model.

A change agenda with inherent complexities and ambiguities, offers multiple pathways. Decision-makers with different mindsets, control-panels, and processes pursue their own unique run through the maze. Depending on the choices made and path traversed, decision-makers develop a sense of what the journey is about. Thus different connotative meanings emerge, and the meanings influence further behavior patterns. We can, therefore, conclude as follows:

The connotative meaning/s of a change agenda is contingent on the specific manner in which the central actors respond to ambiguities and complexities posed by the change.

Connotative Meanings and Effectiveness of Change Implementation

When the meaning develops, it structures the change agenda and reduces the ambiguity for decision-makers. Decision-makers are motivated to invest time, energy, and effort to search for information when the marginal utility of additional unit of information is greater than the marginal cost of gaining that information (Stigler, 1961). When there is image of certainty, the perceived marginal utility goes down substantially, and this introduces a severe disincentive for the search process.

In the following paragraphs, an attempt is made to trace the behavior patterns underlying change implementation in four of the five plants that ignored ambiguity and uncertainty inherent in the situation. This has been done to examine how meanings attributed to the change agenda influence the change implementation process. This is presented as a rough sequence of steps for ease of explanation.

1. Immediate issues defined the terms of the problem. At different points of time, though decision-makers confronted a range of issues, the immediate issues, often, tended to grab the attention. For example, involvement of operational levels was perceived in limited terms of merely conveying certain information. As such immediate issues took the center stage, the larger problem of mobilizing and energizing the skills and commitment of dispersed and diverse elements on interface issues faded into the background.
2. There was an implicit expectation that an immediate solution was possible for the problem, and this should be put in place. There was little or no exploration of choices with regard to identification of internal customers, mechanisms for interface management or monitoring.
3. With the above two behavior patterns, the scope of the problem was narrowed, and the temporal alignment of the problem and solution was ignored. For example, the objective of interface management was reduced to the task of arriving at a memorandum of understanding.
4. There was a tendency to focus on problems that could be solved, not the ones that need to be understood and then hopefully solved. Different plants concerned themselves with the task of having meetings of departmental heads or compiling lists of resource requirements without worrying about the long-term goals of the change agenda. The nature of accountability was experienced only for completing specific tasks or obtaining discrete outcomes, not for achievement of the overall objective. There was little or no reflection on how these tasks contributed to the strengthening of internal customer orientation.
5. The behavior patterns discussed above led to ritualization, and this pushed down the excitement for inquiry and action. When the approaches of problem solving and working together leaves the key actors with no sense of enthusiasm and motivation, the effectiveness of change implementation suffers. So we may conclude:

The meaning/s attributed to the change agenda determines the degree to which change implementation becomes effective.

Influence of Rule Based Decision-making on Connotative Meanings

March (1988) states that decisions can be viewed as choice-based or rule-based. When it is choice-based, actors examine the logic of consequence, making choices among alternatives by evaluating their consequences in terms of prior preferences. When it is rule-based, actors look at the logic of appropriateness. They fulfil their roles by recognizing situations and searching for precedents or rules that match appropriate behavior to the situation they encounter.

There were some interesting patterns in the rule-based decision making that was followed in four of the five plants. These behaviors lent stability to the process. After initiating actions, decision-makers avoided taking stock of the consequences of these actions. This helped them maintain a pseudo sense of control and effectiveness. There was unwillingness to accept fail points. At no point of time, decision-makers examined the possible limitations of their approaches. Finally, there were unrealistic assumptions made: for example, all expertise can be brought to bear immediately; or there is no inertia, and things would take effect instantaneously. For instance, it was conveniently assumed in Plant 1 that once a memorandum of understanding has been worked out between departmental heads, changes would unfold and internal customer satisfaction would be achieved. By providing an image of certainty and control, rule-based decision-making prevented investments being made in the search process for understanding the problem complexity, and generating creative solutions. So we conclude:

The more rule-centric the decision-makers are, the less they capture the richness in meanings that ambiguities inhere.

Influence of Rule Based Decision-making on Ownership of Change

As noted earlier, rule-based logic inhibits the search process. Denial of inherent ambiguities and uncertainties blocks exploration of questions and dilemmas. Justifications tend to emerge for the approach chosen, and outcomes are not specifically related to actions. Organizational actors experience ownership of problems only when four inter-related conditions occur. (1) They see a crisis or opportunity; (2) They experience a sense of control over the situation or event; (c) They feel interested in doing something and committing resources; and (d) They believe that no ready-made solutions are known and that systematic reflection is necessary (Landry, 1995).

When rule-based approach is adopted in the early stages of change implementation, the likelihood of perceiving crisis or opportunity, experiencing control over the situation, and being interested in committing resources for problem solving, all go down substantially. These would require breaking the existing decision frameworks with the attendant risks. On the other hand, choice based decision making and logic of consequence followed in Plant 3 made it more likely for people at operational levels to perceive crisis or opportunity within the larger framework of choices made, experiencing control, and committing resources to problem solving. Logic of consequence makes case for systematic reflection, as ready-made solutions are not believed to be available. Thus ownership of problem at operational levels was more likely in Plant 3 situation.

In other words, with rule-based approach, organizational actors down the line are unlikely to perceive a problem or engage with it. So, no energy or effort is directed to problem solving. This is expressed below as our final conclusion:

Rule-based decision making in the early stages of change tends to lock the organization in rule-based approach in subsequent stages, and pushes down ownership of change.

The tentative conclusions of the present exploratory research need to be tested in future research programs to determine their validity and general application.

The age-old parable of the elephant and four blind men illustrates how different individuals derive connotative meanings of the elephant being a pillar, rope, wall, or snake. Organizational actors develop similar connotative meanings of a change agenda. It is important to understand how these meanings emerge, and how they influence behavior so that we can explore what can be done to influence the process of meaning making in organizations to achieve effective change implementation.

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Mobilizing Illegitimate Movers: A Model for Transcending the Constraints of Potential

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Evolving the capacity to find meaning in life optimizes an individual's ability to go beyond the environment's imposition of potential, and accomplish "outside the box." This paper presents and discusses a theoretical model which: 1) broadens the context for HRD social mandates and 2) provides a process model grounded in self-actualization awareness and thinking which facilitates the individual to go beyond the constraints of potential (as defined by the individual's environment).

Keywords: Social Stratification, Leadership, Existentialism

This paper presents and discusses a theoretical model (see figure 1) which: 1) broadens the context for HRD social mandates and 2) provides a process model grounded in self-actualization awareness and thinking which facilitates the individual to go beyond the constraints of potential (as defined by the individual's environment). The American ideology is that at birth's moment, all people are created equal. Unfortunately, from this point forward, the forces of life shape, label, and direct the opportunities and rights available - resulting in social stratification. According to Liska (1992), Mendoza (1995), and Napoli (1995), humans and their optimization capacity is directly linked to the class in which they exist, and effectively creates an inherent discrepancy in opportunity and process.

Why should HRD professionals be concerned about this inherent discrepancy in opportunity and process? At a social conscience level, it may be incumbent upon HRD professionals to be challenged by the question of whether we are really optimizing human development if we limit the expansive potential of any of our workforce through various strategic intervention strategies? Second, should enterprise continue to be a mirror of social phenomena, or do we have a social responsibility (even if only in the cause of profit maximization) to provide process and opportunity for all individuals that transcend the immediate strategic need of the organization?

HRD purports to maximize individual potential by educating, training, developing and ensuring equality within the workforce. Ruona (2000) highlights these notions in her discourse on the philosophical foundations of HRD. The problem is that we limit individuals to the environmentally defined notion of potential, as defined by the environmental context of the individual. Who creates the definition of the individual potential? It may be society as it addresses general workforce development through its structure and system. Alternately it may be enterprise. The question raised is whether or not in our HRD and structural efforts to improve individual, society, and enterprise capacity, we may be effectively limiting individual potential? The HRD goal should be to help individuals develop beyond the constraints of potential by allowing them to transcend societal derived and potentially limiting norms.

Discussing stratification forces, Liska (1992) suggests that society's and enterprise's power elite will continue control systems to protect themselves from threat-infusion by those outside their sphere. As an individual matures into adulthood, the societal class system increases its stronghold, by limiting the amount of legitimate movement between classes; because as a person matures they develop social consciousness and awareness making a person's relative place in society more salient (Taylor & Moghaddam, 1994). Defying this societal dynamic by moving out of their class presents unique challenges, in part because their behavior is viewed as illegitimate by two spheres of society which are outside their immediate context. The first sphere is the group they are leaving, and the second is the group of which they wish to be a part. We refer to the former as the "base group," and the latter as the "elite group." Brody (1970) refers to these groups in systems terms, using the terms "donor system" (base group) and the "host system" (elite group).

The U.S. prides itself on capitalistic-stratification, which in theory grants an "equal opportunity" and social mobility for everyone. For those Americans who are content with their current social class, this theory does not pose a problem.

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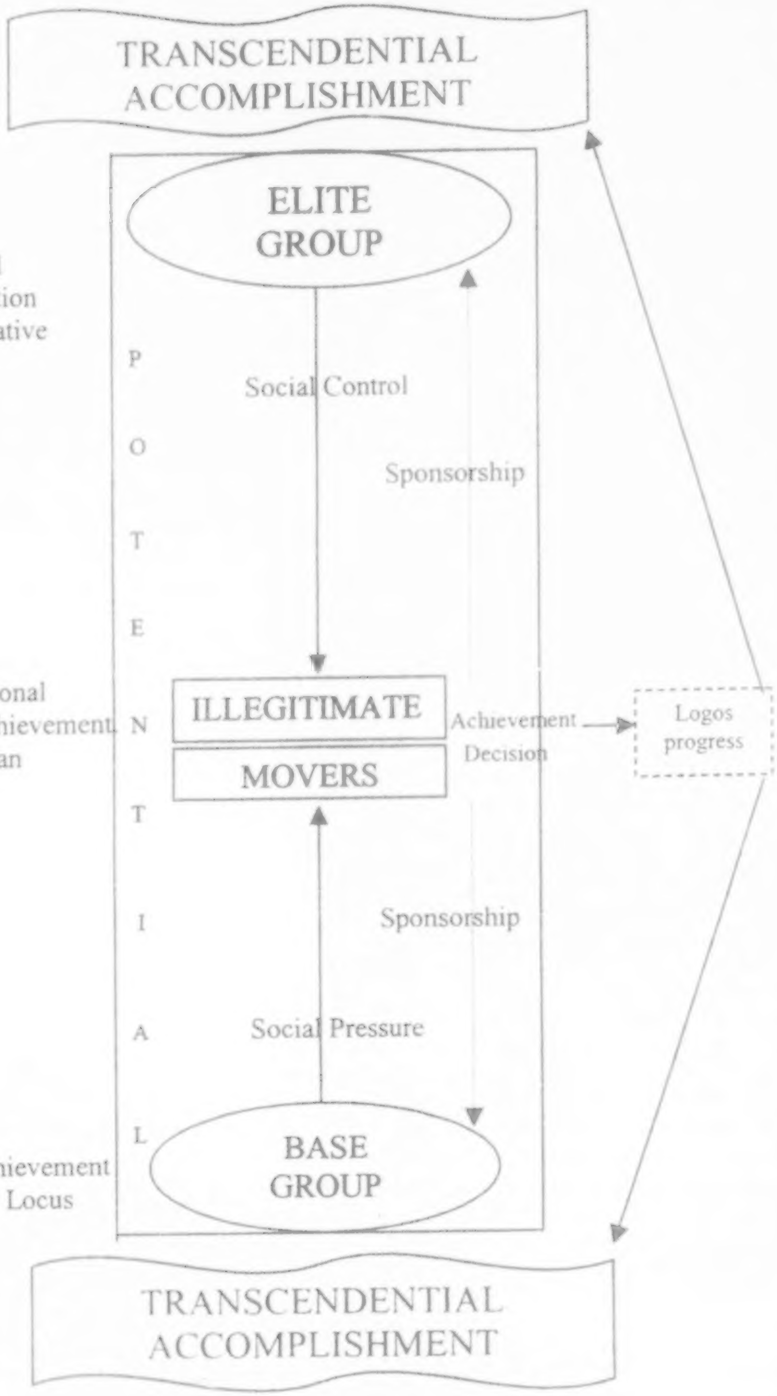
TRANSCENDENTIAL ACCOMPLISHMENT
ELITE GROUP
P O T E N T I A L
Social Control
Sponsorship
ILLEGITIMATE
MOVERS
Achievement Decision
Logos progress
Sponsorship
Social Pressure
BASE GROUP
TRANSCENDENTIAL ACCOMPLISHMENT

Characteristics

Leadership Valued: Transactional
Motivation Orientation: Competition
Decision-Making Style: Authoritative

Leadership Valued: Transformational
Motivation Orientation: High Achievement
Decision-Making Style: Egalitarian

Leadership Valued: Pragmatic
Motivation Orientation: Low Achievement
Decision-Making Style: External Locus

Figure 1. Transcendental Accomplishment Model

However, those who try to put the theory into practice frequently can experience a rude awakening. They find themselves divorced from the base group, which they intentionally left behind, and may only be conditionally accepted by the elite group whom they are striving to be like.

Our model is grounded in two social principles, which extend to both cultural and economic movement. First is that society and its organizations are stratified. Second, is that upward mobility is an unbalancing dynamic. In the latter, there is a fixed-size apple pie from which many people want a piece. For the former, it is the threat that comes from the elite group's psychological fear of cultural intrusion by individuals who have chosen to leave their base group. In our bipolar model, the base group (donor) represents the indigenous group from which the sojourner migrates. The elite group (host) represents the target group to which the sojourner intends to migrate. The illegitimate movers represent the sojourners trapped between two worlds - belonging to neither, unsuited to retreat, and unable to advance. Our model includes a fourth element. This is a characteristic profile of each stratification, to include their leadership preference, their motivation orientation, and their decision making style.

Profile of Model Elements

The Elite Group

Members of the elite prefer a *transactional* style of leadership where strategic social and sometimes even material exchange occurs. "The exchange is established and maintained if the benefit to both the leaders and the followers outweigh the costs" (Homans, 1961). Transactional leadership is most conducive to the elite for several reasons. The elite group and members have much larger economic and social "accounts", thus more resources and social capital to exchange (as compared to the base group). Further, "elites" remain in control since they generally are the sole proprietors of their economic and social "accounts." No member of the elite group will "write checks" that he or she doesn't have sufficient funds to cover. Thus, members of the elite group only facilitate exchanges or transactions that will maintain or benefit their "account." According to Paige (1977), transactional leaders try to maintain existing status quo political institutions and policies. As members of the elite group are at the top of the social framework, why would they want change?

The motivation orientation of the elite group is *competitive*. A competitive orientation is defined by Martens (1976) as " a disposition to strive for satisfaction when making comparisons with some standard of excellence in the presence of evaluative others." Individuals with this orientation are concerned with how they compare to those around them, and they often view someone else's victory as their loss. Within the Western social framework, the closer you are to the top the more you have won in comparison to those you have left behind. The elite group members have often experienced more than their fair share of victories, and are not accustomed to losing. Elite members also realize that every time someone takes a piece of the fixed-size apple pie that leaves less for them. The only way to win in this case is to get more pie than everyone else, and if you can't get to the piece of pie before them, take it from them.

Decision-making for the elite is a top-down process, which is best facilitated by an *authoritative style* of decision-making. The authoritarian decision-maker can also be described as directive (Heller, 1969), coercive and persuasive (Bass, 1960), primarily concerned with production (Blake & Mouton, 1964), or lone decision-makers (Vroom & Yetton, 1973). This decision style directly depends on the individual's official rank (Nelson, 1950). It is pretty hard to use this top down approach unless you are at the top like the members of the elite group. This style supports the elite group in maintaining control, and fuels its competitive orientation for success. According to Bartlett (1959), authoritative decision-makers maintain their success in complex social systems because of their prestige and position.

The Base Group

Members of the base group prefer a *pragmatic* style of leadership and followership. The pragmatic style is aligned with the base group for two reasons. First, those who are content with the way things are value the pragmatic style. Pragmatists learn not to make waves, because they do not want to stick out (Hughes, Ginnet, & Curphy, 1999). Like the elite group, the base group will favor the status quo; as they are often unwilling to exert the physical, mental, or emotional effort required to make a change (Taylor & Moghaddam, 1994). Secondly, the base group's relative position in the stratification structure suggests that they are not the critical decision-makers. Rather, the dominant societal group subordinates them (Tajfel & Turner, 1979).

Members of the base group (as compared to the elite) have a *low achievement* orientation having been conditioned to believe that 1) effort won't improve their conditions, and 2) that their course has been set, and that they cannot override this "automated" system - therefore why bother (Biddle, 1993). According to McClelland (1965), the base group is very extrinsically motivated and lacks the initiative to attempt challenging or nontraditional tasks. In addition, members of the base group could suffer from the "fear of failure" (FOS) psychological construct (Horner 1968). The effect of a low achievement conditioning is that instead of focusing on moving upward towards success the individual moderates his or her fears by remaining stagnate.

Decision making for the base group is much more responsive than for the elite. Members of the base group believe that they are "pawns of fate," and prescribe to an *external locus* of control for making decisions. They prefer being directed as oppose to directing, thus infrequently initiating decisions. Individuals with an external locus of control do not believe that outcomes of tasks are a result of their decision. Also, believing they do not have legitimacy to execute decision-making, they defer to society and superiors to make decisions (Hughes, Ginnett, & Curphy 1999).

The Illegitimate Movers

These are people who have chosen to leave their base group. They have aspirations to attain membership in what they perceive to be an optimal group (the elite group as defined by the environment). The notion of illegitimacy is grounded in the perceptions held toward them by the base group and the elite group. Having chosen to leave their base group, they have socially, politically, and economically - if only in intent - ascribed their base group as not worthy of them. The base group diminishes the sojourner's legitimacy by suggesting the sojourner is no longer "one of us," but now "one of them." The elite group views sojourner as not having legitimacy by virtue of not possessing the same attributes (social, political, economic) that are valued by the elite group. The sojourner now has diminishing legitimacy in the perspective of both the base and elite group. Illegitimate movers are not satisfied with the status quo, and strive to be catalyst for change. They typically do not posses the same lofty economic accounts enjoyed by the elite group, thus they must focus more on the person to influence change rather than using the person in an exchange.

Illegitimate movers seem to prefer *transformational* leadership. Transformational leaders seek change for the improvement of those around them, even if it means changing the framework (Bass, 1990). According to Burns, transformational leadership is ultimately a moral exercise - serving to raise the standard of human conduct. Unlike the elite group, their motives often transcend their personal benefit, and unlike the base group, they are very active in their behavior and critical in their thought. Transformational leadership is afforded to the illegitimate mover, as it does not require special status, and can occur at any social level. Only those who manifest modal values, work to achieve end values, and have a positive impact on those whose lives they touched should be judged as transformational. Leaders who do not possess these three characteristics are usually transactional leaders (Burns, 1978).

The illegitimate movers' motivation orientation is *high achievement*. Achievement orientation represents an individual's intrinsic motivation, which is not primarily dictated by external forces, instead coming from within. Unlike a competitive orientation, an achievement orientation does not need a social component by which to be evaluated. They strive for excellence, persist in the face of failure, and experience pride in their accomplishments (Gill, 1980).

Decision-making preference for the illegitimate movers is a bottom-up or *egalitarian* approach. They believe involving more people in decision processes results in better and more equitable decisions. Their characteristics are described as democratic (Lewin & Lippitt, 1938), primarily concerned with people (Blake & Mouton, 1964), "theory Y" ideologists (McGregor, 1960), or oriented toward joint decision-making (Vroom & Yetton, 1973).

Achievement Decision

What environmental pressures define the potential - and its attendant possibilities and constraints - of the illegitimate mover? The first defining pressure of potential is the current attributes of the elite group. The second is the limiting pathway strategies available for moving toward membership in the elite group, or retreating to their base group. Thus potential is defined by the environment and not by the individual. With this said, what mechanisms can be encountered and utilized to facilitate the mobilization of the illegitimate movers, both within and outside the box of potential?

Sponsorship

Sponsorship mobilizes the illegitimate mover towards the elite group or back to the base group, within the box of potential. Sponsorship towards the elite occurs in two ways. The first is a legal process wherein government mandates that members from outside the elite group be allowed in - a form of "legal adoption." The second is via the emotional response by the elite group who may be overcome with feelings of guilt and bring the "less fortunate" into the elite fold - a form of "social charity." Tokenism occurs when the sojourner is made part of the group, but is not fully accepted as an integrated or embraced member. Like fourth string football players, they 1) are team members, 2) wear the same jersey, and 3) practice with the team, but don't get to play in any games that count. Tokenism as a social strategy accepts few capable illegitimate movers into the elite group, while systematically blocking the majority of the illegitimate movers (Laws, 1975). Tokenism is a subtle but powerful form of discrimination that can have a structural reality for the illegitimate movers. For the sojourner who has spent their life traveling towards the elite group, this token destiny creates and sustains a lingering frustration (Wright & Taylor, 1990).

Sponsorship back to the base group occurs a little differently, but has the same frustrating end. It can occur through strong social ties - such as family wherein illegitimate movers may feel obligated to support the social situation in the base group. This support may be financial, physical, social, or spiritual in form and process. When a dejected sojourner seeks return to the fold, sponsorship may require forgiveness by the base group. Forgiveness may not occur immediately, as it requires social re-norming for both the sojourner and the group. Regardless of the reason, when the illegitimate mover returns to the base group it is viewed as regression. Regression is a relative term, implying a person is returning to a place from which they were trying to leave. Alderfer's (1969) Existence-Relatedness-Growth (ERG) model offers a framework for understanding illegitimate movers' regression. In his model, existence represents the individual's motivation to meet basic physiological and security needs. Once needs are met, they seek relationships and acceptance. However, when the individual is unable to become part of or remain in groups they desire to be part of, they experience the frustration-regression hypotheses. The individual experiences frustration as they regress back to meeting basic needs. The illegitimate mover, who experiences this, becomes a prodigal sojourner whose destiny is his or her beginning.

Logos Progress

Reaching potential is laudable. Our model suggests another option - the achievement of transcendental accomplishment. In the model transcendental accomplishment occurs when the illegitimate mover goes outside the box of potential and rises to Maslow's complete self-actualization. Our treatise is supported by Frankl (1984), Phillips (1997), and Tessin (1997) who agree that capacity fulfillment is not defined by the constraining environmental variables, but is the unleashing of the power of persons to optimize accomplishment by transcending their constraints. It is not an either or path of choice. HRD may be able to help individuals and society in this accomplishment by engaging a process called "logos progress" to assist the illegitimate mover. Victor Frankl suggests that logo therapy will allow a person to remove the constraints of the environmental variable (in the model, potential) and find internal meaning, which would be Maslow's self-actualization.

Logos denotes "meaning," while progress refers to "movement, advancement, and/or development." We suggest logos progress facilitates transcendental accomplishment by focuses on meaningful advancement in life, and by striving for meaning *in* life instead of trying to get meaning *from* life. Such progression better equips the sojourner to realize true meaning, by freeing him or her from the Freudian and Adlerian view that an individual's primary motivation is pleasure, power, and superiority. This realization redirects an individual's destination on an internal state of freedom as oppose to the traditional external focus (elite group status). Frankl (1984) says "To be sure, a human being is a finite thing, and his freedom is restricted. It is not freedom from conditions, but it is freedom to take a stand towards conditions." Such awareness empowers the illegitimate mover, and gives him or her back the potential that was "leased" by society. Striving for meaning in life places the element of an external environment in a non-dominant state. The locus of control for aspiration and value-based meaning is moved from the definition of potential (constructed by the elite or base group) to that of transcendental accomplishment as defined by the individual.

Summary

Wendy Ruona (2000) looked philosophically at the core beliefs underlying HRD and asserted our larger social mandate for responsibility to both society and the individual, to understand how they relate to each other and enterprise. Our model supports her assertion that HRD can assist people in the social context. Our model allows HRD to transcend the traditional organizational focus and to impact and incorporate the larger social context. Evolving the capacity to transcend potential optimizes an individual's ability to move beyond the environment's imposition of potential, and accomplish "outside the box". The result is that the group or the entity that they represent (i.e. enterprise) can itself redefine a higher meaning of potential, and move to that accomplishment.

The model has multiple applications. At the enterprise level it can be used to help a mid-level supervisor (base group) who desires to move into a senior management position (elite group). This can apply to any member of enterprise who wishes to move to a different level. It can also be applied in a more global context, such as when an African-American family decides to leave their community (base group) and move uptown to live next to families with a higher socio-economic status (elite group). In both scenarios, HRD principles (self-actualization and capacity) can be applied to facilitate optimal development. We believe that all individuals - while equally created - do not have equally created potential, as defined by their environment. However, this environmentally created potential, by the elite group and the base group, should not serve to limit an individual's dreams, aspirations, or movement towards a more meaningful life. We truly believe that as HRD professionals, we can help transcend the inequality and constraints of potential. The model facilitates a view to achieve this outcome by helping individuals and organizations find meaning in life and moving them towards transcendental accomplishment.

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OSCAR A. ALIAGA
UNIVERSITY OF MINNESOTA

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Editor

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Academy of Human Resource Development

Exploring the Frontiers of Human Resource Development

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CONFERENCE PAPERS

Institutional and Curricular Characteristics of Leading Graduate HRD Programs in the U.S.

K. Peter Kuchinke
University of Illinois

Focusing on three areas: Institutional arrangements, student enrollments, and core curriculum content, the study profiles 55 leading HRD programs. Findings include a large degree of heterogeneity among program names, departmental affiliations, and specializations. Compared to data from 1991, student enrollment has declined substantially at the master's level while part-time course taking has increased. The analysis of the core curriculum at these institutions showed a disparity between course offerings and much current writing in the field.

Keywords: HRD programs, HRD curriculum

Responding to the increasing demand for employee skills, expertise, and performance in rapidly changing economic and social environments, many universities have implemented academic programs to educate and train HRD practitioners over the past 15 years. Today, these programs are firmly established in professional schools and are in high demand among students from a variety of academic backgrounds. In U.S. Schools of Education, HRD enrollments are among the fastest growing and the "the training of … HRD practitioners is now the 'bread and butter' activity" (Gray, 1997, p. 80).

Little, however, is known about the departments and programs that educate and train future HRD practitioners. Increased knowledge about the characteristics of HRD programs is important because their roles are likely to increase in importance as the profession grows and matures. With increased significance and professional status of a field, as Abbot (1988) observed, formal education and training and the attainment of university degrees and professional credentials take on increasingly important roles in career preparation and advancement. The systematic study of HRD academic programs and departments, thus, is an important but largely overlooked area of scholarship in the field. The purpose of this study was to respond to the need to broaden the knowledge base related to the characteristics of HRD academic programs in the US by answering three questions:

- What are the institutional characteristics of HRD programs?
- How many students are enrolled in different HRD degree and certification tracks?
- What is the core body of knowledge taught in HRD programs?

Answers to these questions can serve several purposes: First, they build a foundation for describing the status of the field in an area where empirical research is lacking—many authors describe what HRD education and training *should be* but far fewer publications address the empirical reality of *what is*. Second, answers to these questions allow researchers to track the development of HRD education over time and assess the degree to which educational institutions adapt to the changing needs of their various stakeholders. Third, these answers lay the foundation for comparative research of systems of human resource education at the national level (the author is currently completing a similar study in the UK). Especially for a young field like HRD, institutional research is important and has been conducted fruitfully in other fields (for example: adult education: The University of Georgia, 1999; vocational education: Lynch, 1998; management education: Segev, Raveh, & Farjoun, 1999; and international MBA programs: Kaynack & Schermerhorn, Jr., 1999).

Review of Related Literature

Problems abound when trying to define the universe of HRD programs in the U.S. In the absence of a central accrediting body at the program level and institution-level professional organizations, little is known about the total number of programs in this country. This is in contrast to the United Kingdom where academic preparation for HRD is conducted by well-defined group of about 30 programs accredited by a national body that is also responsible for skill standards and professional certification. In the U.S., however, higher education is decentralized to a very high

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degree and thus, reliable data on the number of HRD programs are not available. Of the 3,595 public and private institutions of higher learning catalogued by the Carnegie Foundation for the Advancement of Teaching (1994) some 1,400 offer 4-year (baccalaureate) degrees or higher. The most extensive listing of HRD programs was compiled by the American Society for Training and Development (ASTD, 1996) and lists more than 250 degree and certificate programs located in HRD and related programs in a variety of fields.

The ASTD directory presents the most comprehensive listing of programs available but is based on voluntary information provided by the units in response to a mail survey and is, thus, likely not to be exhaustive. Further, ASTD has decided not to update the directory, citing the reason that HRD programs are easy to find on the World-Wide Web and in college handbooks published annually in the U.S. with profiles and rankings of degree programs (ASTD, personal communication, November 1, 1999).

The most comprehensive survey of HRD academic programs was conducted by Gaudet and Vincent in 1993. Based on 1991 data, the authors surveyed universities listed in the 1990 ASTD directory and reported on 122 responding institutions. HRD was the program name used most frequently (n=42), followed by Adult Education (n=22), Instructional Technology (n=12), and Training and Development (N=7). The average program was reported to be 14.5 years old in 1991 and the majority of programs were implemented in the 1980s (Gaudet & Vincent, 1993). Although this study is well over 10 years old, it is surprising to see the total number of HRD programs listed in the 1990 and 1996 ASTD directories being quite similar (218 in 1990, 250 in 1997). While it is not possible to determine the overlap of institutions in the two directories, the similar size of the two suggests that the total number of institutions offering HRD degrees increased by less than 15% in the 1990s.

Enrollments

Accurate enrollment data of HRD programs are also difficult to obtain. The only available study is, again, Gaudet and Vincent's (1993) who reported—among the 113 HRD programs surveyed—41 bachelor's, 108 masters, and 45 doctoral programs with a total student enrollment about 12,200 full-time and 19,300 part-time students. Thus, virtually all programs offered Master's degrees, while some also had undergraduate programs, doctoral programs, or both. Among full-time students about 65% were working towards a Bachelor's, 29% towards a Master's, and 6% towards a doctoral degree. For part-time students the percentages were 49%, 41%, and 10% respectively. The average program graduated 54 Bachelor's, 20 Master's, and 4 Ph.D. students in the 1990/1991 school year resulting in an annual labor supply of about 2,200 Bachelor's, 2,160 Master's, and 180 doctoral degree holders.

Most studies on the curriculum of HRD academic programs use McLagan's (1983; 1989; 1996) research as a point of reference. While other competency frameworks exist, particularly for trainers (for example; Fulkert, 1997, Mager, 1996; Marquardt & Engel, 1993), MacLagan's work has been "adopted as a definitive model of competencies by the American Society for Training and Development [and] appears to continue to provide the basis for preparation of HRD professionals" (Dare & Leach, 1999, p. 2). In 1991, for example, Leach surveyed among 20 departments belonging to the University Council of Vocational Education (now named: University Council for Workforce and Human Resource Education). Faculty at those departments, all located in Ph.D. granting institutions, considered 21 of the 25 competencies for trainers described by McLagan as important for graduates of their programs, although more than one-half were deemed not be adequately covered in the curriculum of the respective institution (Leach, 1993). A follow-up study (Dare & Leach, 1999) identified increased significance of research skills, electronic-systems skills, and visioning, but a decreased importance of competency identification and objective preparation skills. As in the original study, several competencies were judged not to be adequately covered in the curriculum, including career development theories and techniques, budget and resource management skills, organization development theories and techniques, and coaching and negotiation skills.

Baylen, Bailey, and Samardzija (1996) investigated HRD curricula at four research universities using, again, McLagan's framework and found that the six HRD roles most thoroughly addressed in HRD courses were, in rank order: Instructor, Program Designer, Manager (Training and Development/HRD), Needs Analyst, Organizational Change Agent, and Evaluator. Of the 35 HRD courses analyzed by Baylen *et al.* (1996), only two addressed the emerging HRD roles of budget/cost analyst and strategic planner, four addressed the role of Manager of Change, and six the role of Performance Technologist. Thus, the study, although restricted to only four programs, shows a relatively conservative picture of HRD curricula primarily focused on training roles with only minor coverage of broader professional roles and responsibilities.

Methodology

The purpose of this study was to investigate the institutional and curricular characteristics of U.S. HRD programs by focusing on institutional arrangements, enrollment, and curricula. Since previous research (Gaudet & Vincent, 1993) had shown that most HRD programs offered graduate education, the population for this study was defined as those programs that offer master's, doctoral, or graduate-level certificate programs, excluding undergraduate and undergraduate-level certificate programs. Beginning with the 120 graduate programs listed in last available ASTD (1996) directory, the researcher selected 67 graduate HRD programs with one or more faculty members having been, in any of the previous three years, members of the Academy of Human Resource Development (AHRD), the primary professional association. The rationale for this selection was those institutions with faculty active in the AHRD would best represent comprehensive programs focused on the entire field of HRD rather than those programs where HRD is a minor sequence of courses or a specialization within another field of study. The review of AHRD rosters showed that faculty membership was relatively stable between 1997 and 1999, with many members who also held office in the AHRD and actively participated as presenters in the annual conference and thus could be assumed to present the leading edge of the profession. Program administrators of the 67 programs were contacted and invited to participate in the study, and 55 (82%) agreed to do so. A document review of written program information, brochures, and syllabi as well as material available on the programs' web sites was conducted, and information recorded and coded. In a second step, this information was sent to the program administrators for validation, correction, and missing information. 41 administrators replied for a validation rate of 75 percent. Because the corrections were, in most cases, minor, the researcher decided to include the 14 programs where validation, despite several attempts, could not be obtained after a second thorough review of available materials and documents was conducted for these programs.

Results

The sample of 55 HRD graduate programs, listed in Appendix A, contained 44 Ph.D. granting and 11 master's programs. The sample included all but one of the 18 institutions that were also members of the University Council for Workforce and Human Resource Education, a professional organization with institutional membership of leading research universities. 21 of the universities in the sample were also listed in the Peterson guide of graduate programs as HRD programs, while 30 were listed in the same guide as vocational/technical graduate programs, with some programs being listed in both categories. Using the Carnegie classification of institutions of higher education, the sample consisted of programs located in the following categories: Research I: 27, Research II: 6, Doctoral I: 7, Doctoral II: 4, Masters I: 11.

Institutional Affiliation

To describe the institutional affiliation of the sample, the following data elements were coded and tabulated: program name, departmental and college/school affiliation, HRD specializations, and related programs offered in the same department or unit. Many program names showed multiple program emphases (for example: Adult instruction and performance technology, or Workforce education and lifelong learning). The majority of programs (31 of 55), however, carried the title HRD, either alone or in conjunction with related field (for example: Adult Learning and HRD). The second most frequent program category was Instructional/Performance Technology (9 programs), followed by Adult education and related fields (8 programs), Vocational/Technical and workforce education (5 programs), Training and Development, and Adult/Organizational Learning with 4 programs each.

The 55 programs were located in departments or larger units that were very heterogeneous in name, ranging from Departments of Public Administration and Urban Studies, to Psychology, Leadership and Organization, Management, Human Services, Counseling, Curriculum and Instruction, and many others. In fact, there were no two departments with the same name and only a small number with similar names (those indicating emphases on counseling, educational leadership, and adult education.

The large majority of HRD programs (42 of 55) were located in colleges and schools of education, some of which were also identified as: education and psychology, health and education, education and human development, teacher's college, and so on. Two programs were in schools of business administration, one of which was a joint program between business and education. One program was affiliated with the human resource education and training center at a school of labor and industrial relations.

About one-half of the programs (26 of 55) also listed specializations within the HRD programs. Perhaps not surprising given the diversity of departmental affiliations, no clear categories emerged from the listing of 58 specializations. Seven programs offered specializations focused on adult learning, including adult development and adult literacy, six programs on instruction design, three on performance technology, and another three on international HRD and international education respectively. Two program each offered specializations in organization development, information technology, educational leadership, and assessment/evaluation. The remaining specialization covered a broad area, ranging from conflict management, counseling, distance education, and facilitation to gerontology, public policy, the not-for-profit sector, and organizational learning.

Asked for degree programs related to HRD that were offered in the same department or academic unit, 31 programs listed some 57 related programs. These clustered around vocational/technical education and specializations within it, such as marketing, family, industrial, and business education (17 programs offering degree programs in these areas); adult education (seven programs); curriculum and instruction (five programs), and miscellaneous others, including health management, public administration, counselor education, and social and organizational psychology.

Seventeen of the 55 programs also offered graduate-level certificate programs in HRD and related areas. These ranged from training and development, performance technology, web-based training, and instructional technology to vocational education and teacher licensure options.

Enrollment

Forty-two programs reported enrollment data, and these were broken down by full-time and part-time for masters and doctoral levels and non-degree certificate options. Three programs did not have separate counts available for part-time and full-time students but provided combined enrollment numbers. Several program administrators indicated that exact enrollment counts were not available and provided estimates instead. Table 1 shows the enrollment data for the Fall 1999 semester.

Table 1. Student Enrollment in HRD Programs in Fall Semester, 1999 (N=42)

	Master's (n=42)	Doctoral (n=28)	Certificate (n=13)	Total (n=42)
Overall	3903	1422	462	5787
Average	92.93	50.79	35.54	137.79
Median	78	29	22	123
Mode	150	6	50	65
s.d.	66.52	49.84	36.30	101.49
Min/Max	7/250	4/245	5/137	4/403
Percent part-time	80	77	85	80

As the table shows, overall enrollment in graduate degree and certificate programs for the Fall of 1999 was close to 5,800 students, with an average enrollment in master's, doctoral, and certificate programs of 93, 51, and 36 students respectively. There was a wide range in enrollment counts as shown by the minimum/maximum numbers. The vast majority of HRD students attended on a part-time basis, and this was true for all three program categories.

Curricula

Tallying and comparing curricula across programs and institutions is difficult because of the wide variation in course titles and the fact that course names often reveal very little about actual course content. To address these difficulties, the researcher coded content areas covered in course rather than course titles and further focused on the core or required curriculum, ignoring elective courses. This information was obtained by analyzing course syllabi and through validation by the administrators. Where no required core curriculum existed, administrators were asked to indicate those content areas that the average student would learn over his or her course of study. From an initial review an initial listing of content areas was developed using 37 separate content areas that appeared to cover the content of the courses reviewed. This list was then sent to the program administrators with the request to validate the information, add content areas that were overlooked, and add areas not on the list. This resulted in a final list of 34 areas that appeared to circumscribe the universe of content covered in the core or required curriculum of the 55 HRD programs. The list excluded statistics and methods courses that were presumed to part of all doctoral students' preparation, and focused on HRD content areas only.

While other researchers used cluster analytic techniques to map like programs (for example: Segev, Raveh, & Farjoun, 1999), simple frequency distributions were calculated in this study because of the large number of programs and content areas and the focus on the study on describing curriculum rather than identifying clusters of programs. The 55 programs identified a total of 981 content areas, with the average program covering about one-half of the areas identified. After deleting two content areas that were judged to be too vague to add value to the analysis (HRD Trends and Issues, offered by 84% of the programs, and HRD Principles and Theories, offered by 53%), and merging one (adult learning theories and general learning theories) the final list consisted of 31 areas that were ranked in order of frequency and displayed in Table 2.

Table 2. Content Areas Covered in Core/Required Curricula of Graduate HRD Programs (N=55)

Rank	Content Area	Frequency	Percent
1	Instructional Design	43	78%
2	Instructional Delivery	41	75%
3	Evaluation	41	75%
4	Adult Learning Theories	36	73%
5	Needs/Performance Analysis	35	65%
6	History and Philosophy of HRD	35	64%
7	Instructional Technology	33	60%
8	Organization Development	33	60%
9	HRD Consulting	32	58%
10	Management of HRD	30	55%
11	Organization Theory/Behavior	30	55%
12	Organizational Learning/Learning Organization	29	53%
13	Computer Applications in HRD	28	51%
14	Principles of Business/Industry/Mgmt	27	49%
15	Teams/Group Dynamics	26	47%
16	Change Management	25	45%
17	Diversity/Multicultural HRD	24	44%
18	Instructional Media	23	42%
19	Distance Learning	23	42%
20	Career Development	23	42%
21	Strategic HRD	23	42%
22	Psychological Dimensions in HRD	22	40%
23	Facilitation	22	40%
24	Communication in HRD	20	36%
25	Organization Analysis	20	36%
26	Leadership/Management Development	20	36%
27	International HRD	19	35%
28	Action Learning/Research	17	31%
29	Economic Dimensions of HRD	15	27%
30	HRD/Educational Policy Studies	12	22%
31	Quality Management	11	20%

As the table shows, HRD graduate program curricula offer coverage of a variety of content areas but with few outliers. Even the least frequently addressed area, quality management, is still offered by one in five programs. Instructional design and delivery lead the list with evaluation being the third most frequently addressed topic. These three areas were covered in more than three-fourth of all programs. More than one-half (but fewer than three-quarter) of all programs taught organization development, organizational learning/learning organization, consulting, and learning theory related topics. Given the increased attention of strategic and economic issues in the HRD literature, surprisingly few programs addressed these topics, and this was also true for diversity and international HRD. Quality management and public/educational policy related topics trailed the list with fewer than one-fourth of programs addressing these topics in their core curriculum.

Conclusion

HRD graduate programs play an important role in the U.S. system of human resource development, educating and training future practitioners, researchers, and instructors. Little systematic knowledge, however, exists about these programs, and this gave rise to this study. While the universe of academic programs cannot be defined with certainty, the 55 graduate programs in this study are assumed to represent a major portion of the nation's leading institutions offering advanced education and training in HRD. The purpose of the study was to gain insight into three areas: institutional characteristics of those programs, student enrollments, and the HRD curriculum.

Related the first, the study found that only one-half of programs actually carried the name HRD in their titles, although, based on self-identification, listing in professional directories, and active membership in the primary professional association, all were actively engaged in educating and training HRD master's and doctoral students. Further, the 55 programs were located in departments and administrative units with a large array of different names, most of which gave little indication that they might be home to an HRD department or program of study. This finding might give the profession cause for concern because it calls into question its academic identity and might obscure the value associated with the academic provenance of its graduates. HRD differs from most other professions where academic departments are clearly labeled and transparent to the public, employers, and prospective students. Doctors, lawyers, teachers, and accountants, for example, have well-defined educational paths, and these are clearly recognized and recognizable. As HRD develops as a field, the preparatory paths of future practitioners might need to be explained more clearly, in particular with the majority of programs located in schools of education that are, in the public mind, first and foremost associated with public school teaching. Conceptual, definitional, and marketing work on part of the profession and individual programs is called for to argue and demonstrate the value and significance of HRD programs located in academic departments so seemingly disconnected from the world of business and industry. The value of even fields as closely related to HRD as vocational or adult education might not be immediately obvious to the business community, employers, or potential future HRD practitioners and thus needs to be explored and explained by the profession in order to broaden its recognition as a valued member of the business and organizational communities.

The second research question centered on enrollments and points to two major findings: First, the size of student enrollment in graduate programs appears to have grown compared to the findings of Gaudet and Vincent's (1993) study of HRD programs in 1991. While it was not possible to determine the identity of the sample of older study, there are indications that substantial overlap exists: both seemed to have drawn from the same universe using the ASTD directories. While the overall number of programs increased by about 15 percent between 1991 and 1996, the 1999 average master's level enrollment decreased by almost one-half (172 in 1991 vs. 93 in 1999) while the average student enrollment at the doctoral level remained essentially the same (45 in 1991 vs. 51 in 1999). Whether this indicates an overall decrease in interest in the field, the availability of work opportunities in a tight labor market, or a broadening of the supplier base of HRD programs is open to further research. It does call into question, however, the popular wisdom that the HRD field is expanding rapidly because of the increased demand for HRD services and provisions. At least for the population in this study, overall enrollment decreased.

A second insight related to student enrollment was the fact that eight out of ten students attended part-time, representing an increase of 15 percent for master's and 10 percent for doctoral students. Whether this is due to the increased availability of jobs for students, the fact that the student base is shifting towards mid-career practitioners, or other reasons is, again, open to further investigation. It should also be noted that part-time enrollment among doctoral students is rare among professional schools, although more prevalent in schools of education than in other units. The impact of part-time course taking on academic achievement and professional effectiveness also awaits further investigation.

When looking at the HRD curriculum, it becomes apparent that while much of the conceptual writing in the field, stressing organizational learning, strategic HRD, international issues, workforce diversity, change management, distance learning, and the economic impact of HRD has not yet been translated universally into core curriculum content. Fewer than one-half of these programs that can, after all, be considered among the leading edge degree programs in the country, have included these content areas into their curriculum, and this might imply that not all graduates are as well prepared as they should be. Since these programs can also be assumed to educate a sizeable portion of future HRD faculty, one might ask whether future faculty members are as prepared as they need to be given the new developments in the field. It appears that the majority of graduate programs remain focused on rather conventional training and development content areas but are, perhaps, not consistently up to date with leading developments in the field. In this respect, little progress seems to have been made since Leach's (1991) study that found more than one-half of HRD competencies were not adequately addressed by academic programs.

This study attempted to begin a systematic investigation into academic HRD programs, and, clearly, raised at least as many questions as it was able to answer. A few examples of the more pressing research needs are the following: How can the universe of HRD academic preparation be more accurately defined? What is the educational background of HRD practitioners and what percentage do get their education in HRD programs? What is the impact on professional effectiveness of different academic preparations? How much carry-over exists between academia and professional practice? How can supply and demand characteristics for HRD practice be more accurately identified?

Lastly, several limitations require mentioning that should be kept in mind when making sense of these findings. First, this article does not represent the universe of HRD programs but a purposefully selected volunteer sample. Thus, the findings do not generalize beyond the 55 programs. Second, the comparisons to the earlier study by Gaudent and Vincent (1993) are subject to distortions, any differences, thus, might be the results of different populations. Finally, curriculum information provided by the programs is likely subject to differences in interpretation and likely over reporting; reported differences in content area coverage, thus, might be explained with real differences or with different interpretations of the content area labels. Finally, no attempt was made to quantify how much of a content area was covered, merely whether or not it was addressed. The survey also asked for core or required subject matter only, and this might have been interpreted differently by the respondents.

The study of academic HRD programs is in its infancy but has the potential to contribute to a clearer, more consistent, and reasoned definition of the field and the knowledge, skills, and competencies for effective HRD practice.

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Assessment of a Graduate Program in Human Resource Development: Perceptions of Key Stakeholders

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In 1995, a new master's degree program in training and HRD was implemented at a mid-sized public university. When the program had been offered for approximately four years, a systematic assessment was conducted to obtain feedback from multiple sources and to determine whether the program was meeting the needs of key stakeholders. Identified key stakeholders for this program included the program director, current students, program graduates, faculty members, and members of the program's advisory committee.

Keywords: Academic Programs in HRD, Program Evaluation, 360-Degree Feedback

In 1995, a mid-sized public state University located in the Midwestern United States was authorized by the state university system to offer a Master of Science degree program in Training and Development. This program was developed in response to a need for training and human resource development professionals in the geographic area served by the University and an interest expressed by students and alumni who had completed undergraduate courses in this area.

Enrollment in this new program has steadily increased from 35 students in the fall of 1995 to 84 students in the spring of 1999. As of May 1999, 76 students had graduated from this program. In addition to campus-based offerings, courses for the program are now offered on weekends and via distance learning technologies, including video-based courses and web-based courses, to multiple sites within the state.

In the fall of 1999, when the program had been offered for approximately four years, a systematic assessment of the program was conducted to obtain feedback on the program from multiple sources and to determine whether the program was meeting the needs of key stakeholders. Identified key stakeholders for this program included the program director, current students, program graduates, faculty members, and members of the program's advisory committee.

Theoretical Framework

In recent years, multi-source or multi-rater assessment methods have evolved from an innovative technique used only by senior managers in select organizations to an essential management tool used in a wide variety of organizational settings (Church and Bracken, 1997). An estimated 90 percent of Fortune 1000 firms use some form of multi-source assessment to evaluate employees, products, services and programs (Atwater & Waldman, 1998).

In higher education, program evaluation often continues to be conducted with obsolete methods and models which impede comprehensive improvement efforts (Jasperro, 1998). According to the Education Criteria for Performance Excellence set forth by the Malcolm Baldrige National Quality Award Program (1999), educational programs and offerings should be continually evaluated and improved using multi-source evaluation techniques. This evaluation process should include information from students, faculty, employers and other key stakeholders; comparative data on other similar programs offered by other institutions; and use of assessment results.

Using multi-source assessment techniques may be particularly appropriate for assessing an academic HRD program. Collecting data from multiple sources allows for the collection of richer data and allows cross-validation of findings from different groups (Willis & Kahnweiler, 1995). Sources consulted in the evaluation should be those individuals or groups that are in the best position to provide accurate feedback on the program (Atwater and Waldman, 1998). These individuals or groups that have been identified as key stakeholders need to be informed of the evaluation process and how their input will be utilized and integrated into the process (Martin, 1998). For educational programs, key stakeholders may include potential students, current students, former students, parents, instructors, administrators, employers and funders (Mirabella & Wish, 2000).

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Statement of the Problem

Reports on the creation and evolution of academic degree programs in HRD are largely missing from the research literature (Willis and Kahnweiler, 1995). Little information was available on the quality and effectiveness of the Master of Science degree program in Training and Development at a mid-sized public university. The purpose of the study was to assess the quality and effectiveness of the program as perceived by key stakeholder groups. This study sought to answer the following questions:

1. What are the strengths and weaknesses of the M.S. degree in Training and Development as perceived by current students?
2. What are the strengths and weaknesses of the M.S. degree in Training and Development as perceived by graduates of the program?
3. What are the strengths and weaknesses of the M.S. degree in Training and Development as perceived by faculty members associated with the program?
4. What are the strengths and weaknesses of the M.S. degree in Training and Development as perceived by advisory committee members?
5. What recommendations from the above stakeholder groups can be implemented to improve the program?

Methodology

The process used to collect data for this study included a self-study report generated by the current program director. This self-study report included comparative data from other universities with master's level programs in human resource development. In addition to the self study, surveys were distributed to four key stakeholder groups: students, graduates, faculty, and advisory committee members to collect information of their attitudes and perspectives (Mirabella and Wish, 2000). The program director's self-study and survey results were then reviewed by the researcher and the institution's research coordinator and a report containing several recommendations was generated.

The self study report included seven major sections (Planning and Review Committee, 1999). The first section included information on how the program relates to the University's mission and goals. The second section included a description of the general and specific objectives of the program, the design of the curriculum, the teaching and learning methods used in the program and the nature of the student research requirement. The third section included a list of the primary instructors involved the program and their associated areas of knowledge, skills and expertise.

The fourth section of the self study contained an explanation of the process for assessing student outcomes and how information resulting from student assessments is incorporated into the program. The fifth section included a description of the facilities, library, information and technology resources utilized by the program, and the sixth section included information on the demands for graduates and anticipated trends in the nature of positions in the field. The report concluded with a listing of the top five similar programs in the United States and included comparative information on each of these programs.

In addition to the self study, primary data were collected from four key stakeholder groups: current students, program graduates, faculty members, and advisory committee members. The survey instruments used to collect data from each of these groups were developed by the campus Program Planning and Review Committee for the purpose of program assessment. These instruments have been used to review a number of graduate programs at the University.

The faculty member and advisory committee member surveys were administered by mail to the various stakeholder groups. The student survey was distributed in classes by the researcher and the institution's research coordinator. The alumni survey was administered by the University's Office of Budget, Planning and Analysis as part of a university-wide graduate follow-up study. Four of the surveys were administered during the fall of 1999. However, the alumni survey was conducted in the spring of 1998. The results of the study were analyzed by the researcher, with the assistance of a program assistant.

Results

The results of the study can be divided into five sections: results of the self-study, results of the student surveys, results of the faculty surveys, results of the graduate surveys and results of the advisory committee surveys. A summary of the results by section is presented below.

Self Study Results

The self study included a description of the program, including the objectives of the program, the curriculum, the research requirements and methods used to assess student outcomes. In the self-study, the program director had identified five high quality graduate programs in training and development. Comparative data were provided for each of these programs in relationship to the program being evaluated.

Strengths of the program, as identified by the program director, include student enrollment, experienced faculty, and offerings to off campus and distance education students. Weaknesses of the program, as identified by the program director, include the need for additional faculty expertise and additional coursework in areas such as emerging technologies, organizational change and global HRD issues. The program director also expressed concern regarding the outdated classroom facilities and equipment. There was also concern regarding the lack of on-line support services for off campus and distance education students.

Student Survey Results

The student survey consisted of three sections: a section that included 9 demographic items, a section that included 18 statements for students to rate on a 5-point Likert-type scale and a third section that included 5 open-ended questions regarding the strengths and weaknesses of the program. Surveys were administered in classes by the researcher and the institution's research coordinator. Surveys were also mailed to off campus students. A total of 73 students completed the surveys. Results of the survey are as follows:

Table 1. Student Survey Results

The objectives of this program are clearly communicated to students	3.99
Courses in this program achieve their stated objectives	4.05
Assessment procedures appropriately measure student learning	3.92
There is unnecessary overlap or duplication in courses in this program	2.75
Students can complete this program in a reasonable time frame	4.30
Faculty in this program are accessible to for advisement	3.97
Faculty in this program are available outside of class	4.00
Faculty in this program provide students with current information	4.22
Program has enhanced my oral communication skills	4.01
Program has enhanced my written communication skills	3.86
Program has enhanced my problem-solving skills	3.96
Program has enhanced my appreciation of diversity	3.15
Program has prepared me to be successful in HRD	3.83
Overall, this is a quality program	4.16
If I had to do it again, I would choose this program	4.08
Library resources are adequate for this program	3.79
Technology resources are adequate for this program	3.45
Classroom facilities are adequate for this program	3.66

The strengths that were most commonly listed by students included knowledgeable and experienced faculty members, the accessibility of instructors, the applied nature of the courses, and the variety of ways in which the courses were delivered (evenings, weekends, internet-based and via interactive television). The weaknesses that were most commonly listed by students included a lack of entry-level employment opportunities for program graduates, duplication of content among courses, insufficient content on emerging technologies and inadequate administrative and support services for off campus and distance education students.

Alumni Surveys

The alumni survey was divided into five areas: improved competencies, satisfaction with education, satisfaction with employment, overall satisfaction with program and an open-ended question regarding suggested improvements. A total of nine students who graduated from the Training and Development program were surveyed and five students responded to the survey. At the time of this study, spring 1998, only a small number of students had graduated from the program and current addresses were not available for many students. The small number of respondents makes it difficult to identify specific strengths and weaknesses and does not allow for the results to be generalized among all program graduates.

In the first section, respondents were to rate their level of competency improvement in 13 competency areas on a scale of one to five. In 12 of the areas, speaking, writing, problem solving, organizing information, analyzing information, providing leadership, making decisions, conducting research, working in teams, thinking creatively, understanding other cultures and using computers, students rated themselves 3.5 or higher. Only one area, using math and statistics, received a lower rating (2.8). Eighty percent of the respondents were either satisfied or very satisfied with the overall quality of instruction and the availability of faculty members. This same percentage rated the value of the education they received as very good or exceptional. However, 40 percent (two of the five) respondents indicated they would not enroll in this same program again.

Sixty percent of the alumni surveyed indicated that they had received "good" or "very good" preparation for employment and for career development; and this same number were satisfied or very satisfied with their rate of professional advancement. One hundred percent of the respondents were employed; however only one graduate reported that that he was working directly in the training and development field. The average salary of the graduates was $30,815. Recommendations from alumni included updating curriculum, requiring currency and consistency among instructors, increasing job placement efforts and offering more computer-based courses.

Faculty Survey Results

Six faculty members were identified as "primary instructors" in the program by the program director. These individuals teach required courses in the program and serve as advisors for student research papers. The faculty survey consisted of two sections: the first section included 16 statements regarding the program that faculty was asked to rate on a five-point Likert-type scale and the second section contained a series of open-ended questions regarding the program. The results of the faculty survey are presented below:

Table 2. Faculty Survey Results

Quality of instruction in required courses	3.40
Relevance of information provided in required courses	3.25
Quality of instruction provided in support courses	3.20
Quality of scholarly activity/research by instructors	2.80
Quality of classroom facilities	2.20
Quality of laboratory facilities/technology resources	3.33
Level of clerical support	3.20
Students entering program are adequately prepared for graduate work	3.20
Students graduating from program have mastered required content	3.20
Students have the potential to be successful upon graduation	3.20
Communication between faculty and the program director	3.80
Leadership of the program director	3.80
Cooperation of the department chair	4.00
Library resources are adequate for student needs	3.40
Library resources are adequate for faculty research needs	3.40

According to the faculty members, strengths of the program include course quality and strong leadership of the program director. Weaknesses of the program included inadequate number of faculty members to serve off campus and distance education students, lack of entry-level jobs for graduates, quality of the student research papers, content overlap among some of the required courses and variation in how research courses are taught.

Advisory Committee Survey Results

The program's advisory committee consisted of five faculty members, one administrator, one student and six human resource development professionals. The average length of time a member had served on the program committee was 3.6 years. Each advisory committee member was asked to complete a questionnaire that included a series of open-ended questions regarding the strengths and weaknesses of the program.

The major strengths of the program, as identified by the advisory committee members, included "hands-on experience" provided through internships, the program's focus on performance, the program's applicability to the corporate world and the dedication and experience levels of the faculty involved in the program. The weaknesses identified by the program committee included turnover in key faculty positions (including program director), insufficient number of faculty members to continue offering the program at multiple locations and the need for greater emphasis on web-based instructional design.

Conclusions and Recommendations

The following conclusions have been drawn based on the findings from this study. Recommendations based on these conclusions are as follows:

Data from multiple sources indicate that there is overlap among the courses in the program. It is recommended that the program director, with the assistance of faculty members and the advisory committee, review the courses in the program and attempt to eliminate unnecessary duplication of content among courses. It is also recommended that the curriculum be examined in light of current trends in the field to ensure courses continue to include relevant content.

Over the past five years, the program has expanded rapidly from a small, campus-based program to a program that serves students throughout the state. Although the courses have been made available to students through a variety of delivery methods, the number of faculty members has not increased. It also appears as though the campus is having difficulty providing administrative and student services to these students. It is recommended that additional staffing, both permanent and adjunct, be added to better serve the number of students in the program. It is also recommended that the program director work with the offices that provide administrative and support services to students to make these offices aware of the unique needs of students studying at a distance.

Of major concern to the program director and faculty members were the lack of quality classrooms and instructional facilities for the program. It is recommended that the program director and department chair work with the campus planner to discuss possibilities for locating or developing better facilities for the program.

The faculty members were also concerned about the quality and level of research and scholarship among themselves and their students. It is recommended that more emphasis by placed on the value of research by faculty and administrators. If additional staff members can be hired, the existing faculty members may have a greater amount of time to work on collaborative research projects with students.

Data from students, alumni and faculty members indicate that it is difficult for students to obtain entry-level positions in the field of human resource development. In order to increase the number of students placed in positions related to their field of study, several recommendations were made including increasing the number of students who complete internships. Internships are critical for students who lack previous work experience in HRD (Schwindt, 1995). The program director, faculty members and advisory committee members are encouraged to increase networking efforts with organizations and to work the university's placement office in identifying job opportunities for graduates.

Finally it is recommended that multi-source assessment be conducted on a regular basis to ensure the program is meeting the needs and expectations of key stakeholders. It is recommended that additional input from program graduates be sought and that employers be added to the list of key stakeholders. It is also recommended that interviews with alumni, employers and advisory committee members be utilized in addition to surveys.

Knowledge Contribution to HRD

Educators are increasingly faced with an every-growing body of literature focused on the strengths and weaknesses of diverse program evaluation approaches (Schnoes, 2000). This study provides a framework for an assessment model that can be applied to other academic programs in Human Resource Development. Identifying key stakeholders and developing systematic methods of collecting and analyzing input from these individuals and groups is essential for program improvement. Ratings from various groups provide different, relatively unique perspectives and these perspectives, when taken together, are more valid than that of a single evaluator (Borman, 1997). Programs are strengthened as stakeholder expectations are included in defining the direction of the program (Freed, 1997; Obrecht, 1999).

Although all of the data presented in this study were collected from one academic program, findings from this study could provide information for universities desiring to implement or expand an academic program in Human Resource Development (Henschke, 1995). The data from this study may also provide some important clues that may be considered by other university programs desiring to improve programs that prepare HRD professionals.

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Predicting Academic Performance in Management Education: An Empirical Investigation of MBA Success

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Master of Business Administration (MBA) program is one of the most popular approaches to management education. This study investigates the impacts of several precedent variables on the academic performance in an accredited MBA program. A prediction model was developed with multiple regression and the results showed significant impacts of undergraduate grade point average (GPA) and Graduate Management Admissions Test (GMAT). Implications for management education are discussed.

Keywords: Management Education, Academic Performance, Evaluation

Graduate study in Master of Business Administration (MBA) is one of the major approaches to management education (DeSimone, & Harris, 1998). The benefits of developing managerial skills through MBA program have been well documented. Sunoo (1999) comments that an MBA degree provides an opportunity for human resource professionals to enhance their competencies and boost their chances for career development. Messmer (1998) suggests that certified management accountants can benefit significantly from an MBA that offers the growing need for expertise in areas beyond the accounting department. Perry (1995) observes that many food scientists cannot advance to management positions because they get mainly technical training and very little of management education. He advises food scientists to take up MBA degrees in reputable universities in order to advance professionally in the food industry toward executive and management positions. Recent technology development has put MBAs with technology concentration in big demand. Those techno-MBA graduates not only have excellent technology skills, but also understand the strategic, business application of technology. *Computerworld* (1999) surveyed 63 techno-MBA programs and found that graduates of the best techno-MBA programs normally received multiple job offers and landed positions that pay $80,000 to $100,000 per year or more and offer perks such as lucrative stock options. Although graduate study no longer guarantees prestige, the MBA degree seems to retain its glamorous reputation (Shelley, 1997).

On the other hand, demand for admission to the top MBA programs has been particularly strong and the cost of this type of management education is high. During the academic year of 1996-1997, American universities award more than 96,000 master's degrees in business management and administrative services and that figure accounted for nearly one quarter of all master's degrees conferred (Morgan, 1999). The total cost for the top executive MBA program reaches $87, 500 (Industry Week, 1999). Admission to the top MBA programs is very competitive. In 1999, the acceptance rate to Stanford University's MBA program was 7% with 6,606 applicants and the acceptance rate in Columbia University was 11% with 6,406 applicants (Business Week Online, 2000). Given the highly competitive nature of MBA admission, one cannot help asking the question if the criteria commonly used in the admission decisions are predictable for the success in graduate management education.

Similarly, management educators and administrators may also want to understand the factors that determine MBA students' academic performance. On one hand, a good understanding of the factors influence students' academic performance will help related parties to design appropriate academic program and supporting activities. On the other hand, a good knowledge of MBA students' academic performance and its relation with major precedent variables will enhance the decision making in admission process.

The purpose of this study was two fold: (1) to investigate the major precedent variables that significantly influence MBA students' academic performance; and (2) to determine the extent to which a group of precedent

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variables can successfully predict MBA students' academic performance.

Theoretical Framework

The theoretical framework guided this study was based on evaluation model of human resource development interventions. Specifically, Holton's (1996) conceptual model of evaluation outlines factors that determine individual performance and organizational results. Based upon existing evaluation models and research, Holton (1996) proposes causal relationships among motivation elements, environmental elements, ability/enabling elements, and outcomes. It is posited that individual performance is a function of learning outcome which, in turn, is influenced by motivation to learn and individual ability. In the context of management education, academic performance can be viewed as an immediate learning outcome and thus can be predicted by several precedent variables such as prior academic performance, motivation, and ability to learn.

Related Literature

Most graduate schools of management use some type of formula score that combines undergraduate grade point average (GPA), Graduate Management Admission Test (GMAT) and other quantifiable factors for admission to MBA (Carver & King, 1994). Underlying such common practice is the assumption that MBA students' academic performance can be well explained by the precedent variables such as undergraduate academic performance and standardized test score (e.g., GMAT and MAT). Consequently, there has been always a concern whether such practice is theoretically justifiable and empirically valid (Carver & King, 1994; Schwan, 1988). A literature review suggests that there are a lot of studies devoted to investigated the relationship between MBA students' academic performance (usually defined and measured by GPA) with some precedent variables. However, the literature on the prediction of academic performance in graduate management education is not conclusive and the empirical evidences are actually quite different. Hecht and Power (1982) report that the multiple correlation of undergraduate GPA and GMAT scores with first year MBA grade ranged from .12 to .67. Wright and Palmer (1994) used a sample of 86 MBA students at a small midwestern university to determine if GMAT scores and undergraduate GPA were better predictors of graduate performance for some groups of students than for others. It was hypothesized that these precedent measures were adequate predictors of low graduate performance. The results indicated that, although undergraduate GPA and GMAT scores were modestly associated with graduate performance across the full range of students, they did not discriminate between moderately low and very lower performers in the program. Multiple R-square was estimated as .212.

The explanatory and predictive power of the certain precedent variables commonly used in graduate admission practice has been studied, but different results were yielded. Carver and King (1994) investigated the MBA admission criteria for nontraditional students. The researchers explored a number of precedent variables including: age, gender, undergraduate major, work experience, lapse of formal education, competitiveness of undergraduate institution, undergraduate GPA, and GMAT verbal (GMATV) and GMAT quantitative (GMATQ) scores. Nevertheless, they found that only three variables were the best predictors of success for the nontraditional students: GMAT score, undergraduate GPA and work experience ($R^2 = .220$). Paolillo (1982) reported that undergraduate GPAs and GMAT scores explained slightly less than 17% of variance in graduate GPA. Likewise, Deckro and Woundenberg (1977) reported that GMAT score and undergraduate GPA accounted for less than 15% of the variance in academic performance of graduate management education. Hancock (1999) confirmed previous finding that there is no gender difference in MBA academic performance, but also revealed that males achieved higher scores on GMAT.

Although it has been recognized the both undergraduate GPA and GMAT scores are needed as key admission criteria, previous studies revealed mixed results in terms of the relative impacts of these two variables on the graduate academic performance. Zwick (1993) conducted a study involved 90 schools in the United States and Canada to investigate the validity of the GMAT for the prediction of grades in doctoral study in business and management. It was found that the prediction achieved using undergraduate GPA alone as a predictor tended to be more accurate than that obtained using GMATV and GMATQ together. Including all three predictors was more effective than using only undergraduate GPA. In a series of bivariate regression analyses for the data set collected from a southeast university, Ahmadi, Raiszadeh and Helms (1997) reported that undergraduate GPA accounted for more than 27% of the variability in graduate GPA and GMAT explained only 18% of the variability. In a recent study of predicting MBA academic performance, Hoefer and Gould (2000) revealed similar finding to that of Zwick and found that GMATV, GMATQ and undergraduate GPA were strong predictors. Moreover, GMAT scores had higher correlation with the graduate GPA than undergraduate GPA. Nevertheless, Carver and King (1994) report that GMAT is stronger predictor than undergraduate GPA in predicting MBA academic performance (standardized regression coefficient was .354 and .256 respectively for these two predictors).

Research Questions

Because the literature on the predictive power of those variables commonly used in graduate management admission is not conclusive, this study was designed to answer the following research question:

1. What is the extent to which the academic performance in graduate management program can be explained by certain precedent variables?
2. What is the relative importance of a group of precedent variables in explaining and predicting the academic performance?

Methods

Sample and Data Collection

Files of all MBA graduates at Auburn University were sought and a total number of 543 subjects served the sample of this study. The MBA program is accredited by the AACSB. Among 543 subjects, 148 of them had missing information on at least one variable (27.3%) and thus were not entered into the data analysis. Consequently, the remaining 395 subjects were used as the valid sample of this investigation.

Variable Selection

It has been a common practice to use Grade Average Point (GPA) as an indicator of students' academic performance. Following this tradition, MBA students' academic performance was measured on the overall GPA (on a 4.0 scale) in the present study. Therefore, MBA students' overall GPA was treated as dependent variable. Several precedent factors were included to determine their influence on the dependent variable and these factors are generally terms as independent variables or predictors. Students' gender was included in the study to see if sex have significant impact on students' academic performance. There might a gender gap on standardized test such as GMAT and academic performance (Hirschelf, 1995; Johnson & McLaughlin, 1993). Students' native language was another independent variable included in the study. It was reasoned that international students might have language barriers that ultimately affect their academic performance. Previous studies have shown that foreign students' English fluency and country of origin affect academic performance (Stolzenberg & Relles, 1991). Students' undergraduate GPA was included in the study as it was reasoned that prior academic performance might hold continuos impact on the academic performance at graduate level. Finally, GMAT total score (GMAT), GMATQ and GMATV are used in this project because they are normally used as the important admission criteria in most graduate management education programs. The GMAT is designed to measure general ability and knowledge of the student.

Data Analysis

Multiple regression analysis is the analysis technique used in the study. This technique examines the multiple correlation between a dependent variable and a set of independent variables. Several analysis stages were involved in the data analysis in order to build a robust prediction model and to determine the generalizability of the model (Stevens, 1996). First, the whole sample was randomly splitted into two approximately equal number groups. One group served as model building sample used to establish a prediction model for MBA's academic performance. The other group served as holding sample used to validate the model established for the model building sample. Second, a series of multiple regression analyses were conducted for the model building sample to establish a prediction model with best predictors. The regression assumptions were examined to see if they have been met in order to conduct the analysis. Thirds, the regression model established in the second stage was validated for the holding sample and the final model was built when validation evidence was sought. Fourth, the final model was applied to the whole sample to estimate relevant parameters in the model. All data analyses were conducted with JMP IN software program that was developed by SAS Institute (Sall & Lehman, 1996).

Results

Table 1 presents the demographic information for each of the samples. Both male and female MBAs are almost equally represented in the building and holding samples. Female MBAs represent about one quarter of the student body. Only about 5% of the sample came from foreign countries. Furthermore, international students are not quite equally represented in the building and holding samples (3.96% and 5.71% respectively).

Table 1. Demographic Distributions Across Samples

	Building Sample		Holding Sample		Total Sample	
	N	%	N	%	N	%
Gender						
Male	149	73.76%	143	74.10%	292	73.92%
Female	53	26.24%	50	25.90%	103	26.08%
Language						
English	194	96.04%	182	94.30%	376	95.19%
Foreign	8	3.96%	11	5.70%	19	4.81%

Table 2 reports means and standard deviations of continuous variables across different samples. As it can be seen, all these continuous variables have by and large same means and SDs between the building and the holding samples. For the total sample, GMAT score ranged from 340 to 770, GMAT verbal scores ranged from 11 to 65, and GMAT quantitative scores ranged from 14 to 49. GPA scores in the MBA program ranged from 2.43 to 4.0 and the undergraduate GPA ranged from 2.13 to 4.0.

Table 2. Means and Standard Deviations for the Variables in the Study

	Building Sample		Holding Sample		Total Sample	
	Mean	SD	Mean	SD	Mean	SD
GPA@MBA	3.43	.30	3.42	.30	3.42	.30
GMAT	524	77	521	73	523	75
GMATV	31.00	6.77	30.72	6.49	30.86	6.63
GMATQ	31.20	6.91	30.91	6.20	31.06	6.56
UGPA	3.04	.40	3.11	.42	3.08	.41

All predictors were entered into regression analyses for the building sample first. Different combinations of predictors were examined to find the best multiple correlation with graduate GPA. It was found that students' age and gender had no significant predictability for the academic performance. Language showed somewhat significant prediction, while GMATQ, GMATV, and UGPA presented very strong prediction power. Then a final model was built based on predictors of language, GMATQ, GMATV, and undergraduate GPA. The model explains nearly 25% variation of the academic performance for the building sample. This model was then applied into holding sample and it accounted for about 26% variation of MBAs' GPA. All regression estimates from the two samples were then compared and they are very close. The cross-validated R (between the observed GPA scores for the holding sample and the predicted ones based on the model developed from the building sample) was .51 ($p < .001$). It was then concluded that the model built for the building sample was reasonably applicable to the holding sample.

Based on the above results, the regression model was used for the whole sample to get the regression estimates. Table 3 reports estimated parameters and associated statistical tests. The results of this study suggested that language was somewhat significantly predictable for the MBA students' academic performance. GMAT Quantitative and Verbal, and undergraduate GPA were very significant in the prediction. R-square of the regression is .26. That is, more than one quarter variation of the MBA academic performance can be explained by the regression model.

The relevant Ts, *p*-values, and standardized regression coefficients in the Table 3 provide information about the relative importance of the predictors. The larger the T and standardized regression coefficient and the smaller the p-value, the more important the predictor is. This study suggested that undergraduate GPA was the most important predictor for the graduate academic performance, followed by GMATQ and GMATV, while language made little contribution.

Table 3. Regression Equation Predicting MBAs' Academic Performance

Predictors	Estimate (B)	Standardized B	SE B	T	*p*-value
Intercept	1.899	0	.135	14.05	<.0001
LANGUAGE	.056	.081	.032	1.75	.081
GMATQ	.011	.252	.002	5.23	<.0001
GMATV	.001	.213	.002	4.33	<.0001
UGPA	.267	.331	.033	8.16	<.0001

$R^2 = .259$

$R^2_{(adjusted)} = .252$

$F(4,390) = 34.008$ ($p < .0001$)

Conclusions and Limitations of the Study

Overall, this study confirms the findings revealed in the literature. It is a positive result that about one quarter variation of MBAs' academic performance can be explained by only four precedent variables. This result tends to support the utility of GMAT and undergraduate GPA. It appears that undergraduate performance is the most important prediction for the graduate academic performance. The study discovered that age and gender had no predictive utility in explaining the academic performance. Clearly, admission decision and any other selection process should not be based on age or gender.

Nevertheless, the predictive utility of precedent variables commonly used in graduate management education is limited. The study calls for further research in this area. Particularly, it is important to investigate other important variables such as learning motivation and working experience. Only about one quarter of the variance of MBA's academic performance could be accounted for by several selective variables. Several authors have correctly noted that there are far more important variables that determine the MBA's academic performance than those ones used in common admission practice (Ahmadi, Raiszadeh & Helms, 1997; Baldwin, Bedell, & Johnson, 1997; Wright & Palmer, 1994). It would be inaccurate to assume that prior academic performance is the single best predictor for the performance in management education program. This study reveals that only one quarter of the variations of academic performance can be attributed to some precedent variables. Baldwin et al. (1997) find that centrality in friendship, communication, and adversarial network affect both MBA students attitudes and grades. Management educators should pay more attention to the learning contexts that determine learning and transfer. Admission decisions should be made incorporating other evidences such as writing samples, career statement, personal interview and reference.

There are certainly a number of limitations of this study that constrain the generalizability of this study and warrant some caution in the interpretation of results. First, only few predictors were sought due to limited time and resources. Had other important variables been included in the project, the prediction might have been improved to a greater extent. Second, there is considerable amount of missing data and thus the valid sample size has been considerably reduced. So far, we do not have enough information to infer how these MBAs would perform in relation with their backgrounds. Third, few international students are included in the study. Thus, it should be careful to generalize the conclusion to a larger population with regard to the admission practice.

Implications for Management Education

DeSimone and Harris (1998) comment that management education is one of the most common human resource development activities. Keys and Wolfe (1988) define management education as "the acquisition of a broad range of conceptual knowledge and skills in formal classroom situations in degree-granting institutions" (p. 205). This study contributes to the literature by examining several precedent variables that significantly influence academic performance in popular MBA program. Although the predictive power for the academic performance in graduate management education from prior performance and standardized test scores is limited, several precedent variables still explained a considerable variations of the academic performance. Management educators and administrators should carefully examine the impacts of prior academic performance on the performance of graduate management education. They should work with test developers to ensure adequate validity and reliability of the standardized examination such as GMAT. Overall, this study supports the continuous use of undergraduate GPA and GMAT score in admission decision-making process. However, other factors should be taken into account such as motivation to learn, working experience, and career plan.

In addition to the information from standardized tests and prior academic performance, other screening methods should be employed in graduate management admission. Tarr (1986) observed that business schools have allowed concern for human skills to slip in their effort to strengthen technical scholarship. He emphasizes leadership skills in screening applicants. Assessment on applicants' motivation to learn, communication and leadership skills can be obtained through personal interview or other authentic assessment methods.

This study has implications for management education not only in the area of admission decision but also in areas of content and teaching methods. Just like a limited percentage of variance of academic performance is attributed to those tangible previous learning outcomes such as undergraduate GPA and GMAT scores, MBA graduates' management performance in practice and career success cannot be explained solely by their academic performance. O'Reilly and Chatman (1994) studied the effects of motivation and ability on the early career success of a sample of MBA graduates in the early years of their careers. It was found that it was the interaction of motivation and general cognitive ability that most strongly predicted early career success. Nevertheless, the predictive power of these two variables was limited in terms of R^2 in multiple regression. After controlling several demographic variables (e.g., age, sex, years of graduation) and working settings (e.g., types of working organization), motivation and general ability accounted for only 4% variance of reported salary and 16% variance of promotion. The present study appears to concur with this finding and suggests that formal learning is not the most importance determinant for individual performance. Recent arguments have suggested that learning from practice or informal learning is as vital as formal learning of formal technical knowledge (Lave & Wenger, 1991; Yang, 1999). Traditional management education emphasizes theory rather than practice, and it normally values formal rather informal learning. This type of management education places much emphasis on rational, scientific, systematic and formal knowledge base as its major content. Raelin (1993) posits that advanced management education programs should include both theory and practice. Theory-based programs might cause students to think that management problems can be nestled into neat technical packages. In the light of holistic perspective of knowledge and learning, practice should be an essential component of management education.

This study demonstrates that business education needs to be enhanced with international perspective. The results of this study suggest that students' native language had moderate influence on the academic performance. The factor of students' native language should be taken into account in graduate management education. As the world economy is experiencing rapid process of globalization and American firms are facing the challenge of international competition, universities are receiving more and more international students. According to the statistics of National Center for Education Statistics, a total of 14,389 master's degrees in the field of business management were conferred by American universities to "non-resident alien" and this figure accounted for almost 15% of the degrees awarded in this field. The presence of foreign students can be a very positive force to graduate management education because they can share different cultural and social understandings about management and international backgrounds. Kedia and Harveston (1998) posit that management education needs to change to prepare business leaders with a worldview. Obviously, international students can be a valuable asset for any program of graduate management education. They can help faculty members to enhance awareness of international implications and global perspectives. However, they might have language barrier to overcome. As international students who have studied business management in two American universities, our experience showed that few faculty members have paid special attention to international students. Most faculty members tend to treat international students the same as American students and fail to consider their special needs and use this type of valuable asset. If we think that the concept of globalization is real, educators of business management should take a proactive role in increasing international perspective and examining global implications of their business.

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A Multilevel Theory of Organizational Performance: Seeing the Forest *and* the Trees

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The process used to develop "A Multilevel Theory of Organizational Performance" is presented and emergent insights analyzed. Expert reviewers found the theory to be provocative and useful in examining holistic performance systems. The theory succeeds in mapping relationships across aspects and levels of performance that have previously been isolated by level. It also enhances current levels models by using a social collective perspective to operationalize performance capacities arising from the uniquely human aspects of organizations.

Keywords: Performance, Theory, Multilevel

Human resource development (HRD) scholars have been on the cutting edge in their use of systems theory as a tool for understanding organizational phenomena (Sleezer, Gradous, & Maile, 1999). HRD professionals have effectively used this perspective to contribute to the body of knowledge related to individual, team, and organizational learning and performance. However, our knowledge of the complex relationships that link these processes across organizational levels remains limited. Although we know a great deal about the "trees" and even the isolated groves of trees in the organizational "forest," we have yet to capture the complex whole of the forest itself. To capture the whole, we must consider the myriad relationships that link organizational levels.

This gap in knowledge related to levels issues in organizations is not unique to HRD. The study of organizations by scholars in numerous fields has long been fragmented along lines roughly equivalent to levels of analysis (Behling, 1978; Klein, Tosi, & Canella, 1999; Rousseau, 1985). This situation has encouraged narrowly defined studies that focus on one level at a time and are dominated by a focus on the individual and organizational levels of analysis (Klein, et al., 1999). The "meso" area in between, where components and subsystems interact in complex ways, has been relatively unexplored (Glick, 1985; Holton, 1999; Roberts, Hulin, & Rousseau, 1978). Many are now calling for organizational scholars to confront the complexities of multilevel theory-building and research (e.g., Chan, 1998; House, Rousseau, & Thomas-Hunt, 1995; Morgeson & Hofmann, 1999).

Currently, there is also a convergence of ideas from diverse fields indicating that scholars may now be ready to address this meso gap. Those in micro-oriented fields, such as HRD and organizational behavior, are encouraging their peers to broaden their perspectives by considering organization level effects (e.g., Holton, 1999; Mowday & Sutton, 1993; Passmore, 1997; Swanson, 1999). At the same time, researchers in the macro-oriented field of business policy and strategy have begun to see value in the resources embedded in individuals and groups in organizations. Proponents of the *resource-based view* of the firm (e.g., Barney, 1991; Wernerfelt, 1984) now acknowledge that the idiosyncratic human capital of a firm may represent valuable resources that contribute to a firm's sustainable competitive advantage. The convergence of these ideas creates an incentive to integrate previously competing approaches to the study of performance.

Because multilevel theory provides the means to integrate and explore the dynamic complexities of the meso region, a true multilevel theory of organizational performance should also help us to reconcile previously fragmented views of performance. This paper offers a brief description of one such a theory.

Foundational Concepts from the Literature

A Multilevel Theory of Organizational Performance (Fisher, 2000*)* was developed using foundational concepts established by early multilevel thinkers who viewed the organization from a social collective perspective (e.g., Behling, 1978; Coleman, (1986). The social collective view of organizational levels focuses on the interaction and affiliation characteristics of the organizational members rather than the task and technical configurations that have characterized the levels models familiar to HRD scholars (e.g., Rummler & Brache, 1995; Swanson, 1996). In addition, the theory draws on ideas advanced by scholars of complexity and systems theory (e.g., Bertalanffy, 1962;

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Senge, 1990; Stacey, 1995); organizational learning (e.g., Argyris & Schon, 1996; Daft & Huber, 1987; Walsh & Ungson, 1991; Watkins & Marsick, 1993), and the resource-based view of the firm (e.g., Barney, 1991). The resource-based view holds that firms that develop valuable, rare, inimitable rent-producing resources may outperform their competitors (Reed & DeFillipi, 1990). Many of these types of resources are embedded in the human capital of the firm and are the direct result of organizational learning (Conner, 1991).

Dubin's (1978) seminal work on theory-building was used as a guide to the theory-building process and was supplemented by the work of more contemporary multilevel theorists. The methodology of the theory-building process is traced in the following section.

Methodology

First, to provide the structural foundation for the theory, a multilevel theory building model (MLTB) was developed. The first five steps of Dubin's (1978) theory-building template were used as a framework and augmented with insights of contemporary multilevel theorists who share the social collective view of organizational levels.

Rousseau's (1985) taxonomy of mixed-level models was used to describe functional relationships among levels; the work of Klein, et al. (1994) was used to consider the sources of variability among constructs at multiple levels;and the ideas of Morgeson and Hofmann (1999) and Chan (1998) were used to consider structural, functional, and process characteristics of collective constructs. The resulting MLTB model is summarized in Table 1.

Table 1. An Integrated Methodological Model of Multilevel Theory-building

	Substance	Source
I	Definition of theoretical units and collective constructs	Dubin (1978) and Morgeson & Hofmann (1999)
II	Specification of levels including boundaries	Rousseau (1989)
III	Determination of theoretical boundaries	Dubin (1978)
IV	Identification of laws of interaction among units or constructs	Dubin (1978)
V	Specification of functional relationships among levels	Rousseau (1989), Morgeson & Hofmann (1999), and Chan (1998)
VI	Specification of assumptions of variability among levels	Klein, Dansereau, & Hall (1994)
VII	Definition of system states	Dubin (1978)
VIII	Statement of propositions	Dubin (1978)

Second, to survey the current body of performance research, a sample of 34 performance studies from micro and macro fields published from 1984 to 1998 was examined for areas of convergence. The studies were found to converge in their use of systems theory and their inclusion of concepts related to organizational learning. The resource-based view emerged as a conceptual frame linking systems theory and learning. Third, to test the relevance of the MLTB, the model was used to examine the nine studies from the sample that were determined to be multilevel. The MLTB proved to be useful for examining the multilevel aspects of these nine performance studies. In the fourth step of the methodology, a multilevel theory of organizational performance was developed by systematically addressing the eight elements in the MLTB model. Because this is the heart of the study, this phase is described in more detail in the following section.

Building the Theory

In keeping with the social collective view of organizational levels, three theoretical units representing levels were identified: *individual*, *group*, and *organization*. The *individual* level is the most subordinate and has an unambiguous boundary. In the space between the individual and the organization levels, there are numerous interacting collectives—both formal and informal—including dyads, work teams, informal groups, departments, and business units. Because interaction is a fundamental component of collective action (Weick, 1995a), any collective of individuals that does not include all organizational members and in which social interaction takes place is considered part of the *group* level. This level is complex and characterized by multiple, overlapping memberships, ambiguous boundaries, and partial inclusion. The *organization* is viewed as the formally structured social entity with identifiable boundaries (Katz & Kahn, 1966) that includes all elements of the individual and group levels.

The theory also incorporates a fourth level—*industry*—borrowed from the strategy literature (Porter, 1980). This level includes all organizations competing in the same marketplace. The focal level of the theory is the organization, and "sustained competitive advantage" at the industry level is used as the performance criterion.

Theoretical units representing aspects of performance also were developed. These performance aspects—*capacity, process*, and *accomplishment*—were based on the generic systems view (Katz & Kahn, 1966) and terminology developed by Sleezer, et al. (1999). When relationships were teased out of this traditional model at the organizational level, it became evident that *process* not only serves the traditional, feed-forward production role, but also takes on a separate role in learning. *Learning process* operates in the feedback direction from market experience and production process to organizational memory—a subset of *capacity*. This conception is supported by the organizational learning literature (Argyris & Schon, 1996; Walsh & Ungson, 1991; Watkins & Marsick, 1993). Based on the generic systems model, both *production* and *learning processes* operate as mediators between *capacity* and *accomplishment*. Theoretical units for external *resource* and *product markets* were also established based on the strategy literature. Figure 1 illustrates the performance aspects and the relationships that link them at the *organization* level. The complete model contains 15 theoretical units: four performance aspects at three levels, two markets at the industry level, and one unit representing organizational memory.

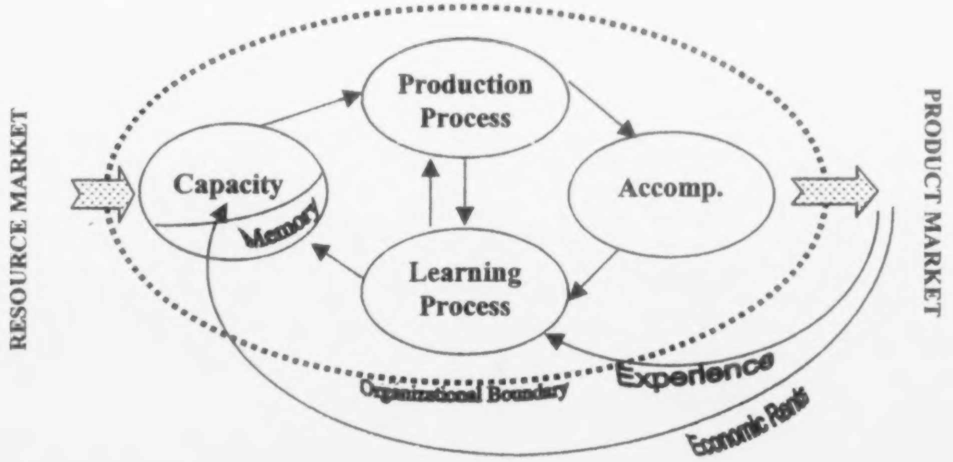


Figure 1. Systems Model of Performance Aspects and Markets at the Organization Level

Following the specification of theoretical units and boundaries, the theorist focused on two types of relationships among the theoretical units: (1) the *intra*-level relationships linking performance aspects within the individual, group, and organization levels and (2) the *inter*-level relationships that cross levels. The *inter*-level relationships may either link levels within performance aspects (such as the link between the individual and group levels of learning process) or cross both aspects and levels (such as the link between group production process and organizational accomplishment). In Figure 1, those relationships shown within the dotted line are all *intra*-level relationships at the organizational level, while those relationships indicated by arrows crossing the dotted line are *inter*-level relationships linking performance aspects at the organization and industry levels. Note that the direction of *intra*-level relationships is constrained by the generic systems model and the mediating role of process, both learning and production. Thus, there are no direct relationships joining capacity and accomplishment

Twenty-one *intra*-level relationships were defined. Upward relationships within performance aspects took the form of Rousseau's (1985) compositional type. Compositional relationships allow collective action to emerge from the individual and group levels to the organization level by focusing on the functional similarities between variables at progressively more complex levels. For example, learning at the group and organizational levels is structurally different from learning at the individual level but fulfills a similar function. Compositional relationships are critical aspects of the meso space in organizations. Twelve compositional relationships were defined for the four performance aspects. Figure 2 depicts compositional relationships among levels using the capacity aspect as an example.

When the relationships that cross both levels and aspects of performance were considered, some potential links were found to be redundant. (Figure 3 depicts the potential links crossing levels between the capacity and production process aspects that were examined.) As a result, several relationships that initially appeared to be cross-level, multi-aspect links were actually determined to be combinations of compositional and *intra*-level links. An example of such hybrid links is shown in Figure 4.

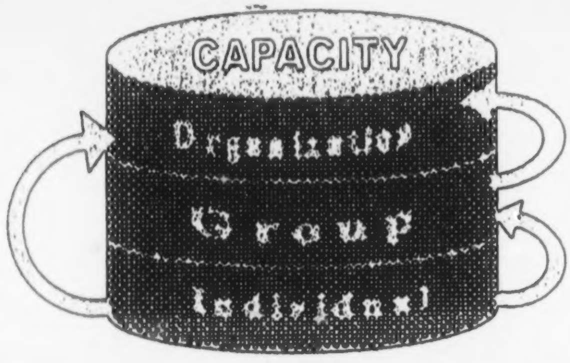

CAPACITY
Organization
Group
Individual

Figure 2. Compositional Links within Performance Aspects

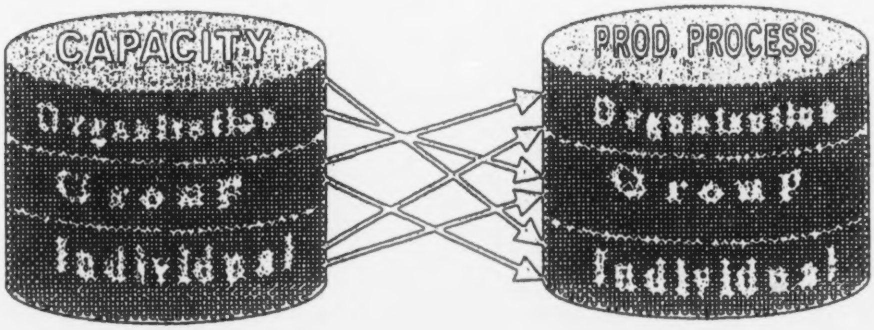
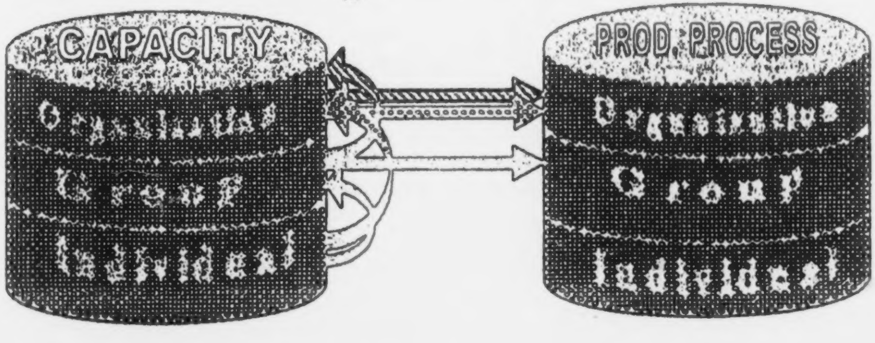

CAPACITY
Organization
Group
Individual
PROD. PROCESS
Organization
Group
Individual

Figure 3. Possible Cross-level, Multi-aspect Links


CAPACITY
Organization
Group
Individual
PROD. PROCESS
Organization
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Individual

Figure 4. Hybrid Links Involving Composition

Overall, 24 potential relationships crossing both levels and aspects of performance were examined. Nine of these were discovered to be hybrids composed of combinations of compositional, *intra*-level, and cross-level links

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previously identified; and two were described by previous relationships. Thus, 13 discrete cross-level, multi-aspect links were defined. Figure 5 depicts the 15 theoretical units and 32 of the 47 relationships defined by the theory. (Because of the complexity of the figure, the relationships that cross both levels and aspects and two relationships defined as managerial links are not shown.)

The 47 relationships among units defined by the theory were all determined to be categoric and directional. This precluded any consideration of *system states* as defined by Dubin (1978). The complexity of the theoretical system also impacted the *proposition* step of theory-building. Because the number of potential propositions emanating from 47 relationships is huge, the theorist elected to develop but a sample to demonstrate how falsifiable and useful truth statements may be drawn from the theory. The following are examples of two.

> *Proposition A*: The cycle time of subsystems at lower levels (individuals, dyads, and small groups) within the organization will be shorter than that of higher level subsystems (large groups) and that of the organization as a whole due to increasing complexity.
>
> *Proposition B*: Groups and organizations that acquire and use knowledge obtained from production process, learning process, and the evaluation of accomplishment make continuing adaptations to production process that result in accomplishments of higher quality and/or greater quantity than those groups and organizational that acquire and use knowledge learned from fewer sources.

Finally, the theory was submitted to outside experts in relevant fields of study to evaluate its usefulness and the magnitude of its contribution to the study of organizational performance. The results of this assessment are described in the following section.

Expert Opinions

Among the group of experts asked to provide feedback were multilevel theorists, researchers who have conducted multilevel studies, HRD scholars and practitioners, and strategy scholars. Four of five experts who participated were satisfied that the model developed in the study is a theory. The fifth reviewer believed that a theory should be a more simplified view of reality. This expert felt that the model presented is not parsimonious enough to qualify as theory. Four reviewers acknowledged that the theory offers a holistic frame for examining performance that reveals synergies among previously fragmented concepts. Thus, the theory may be useful in bridging disciplinary gaps and expanding our vision of organizational performance.

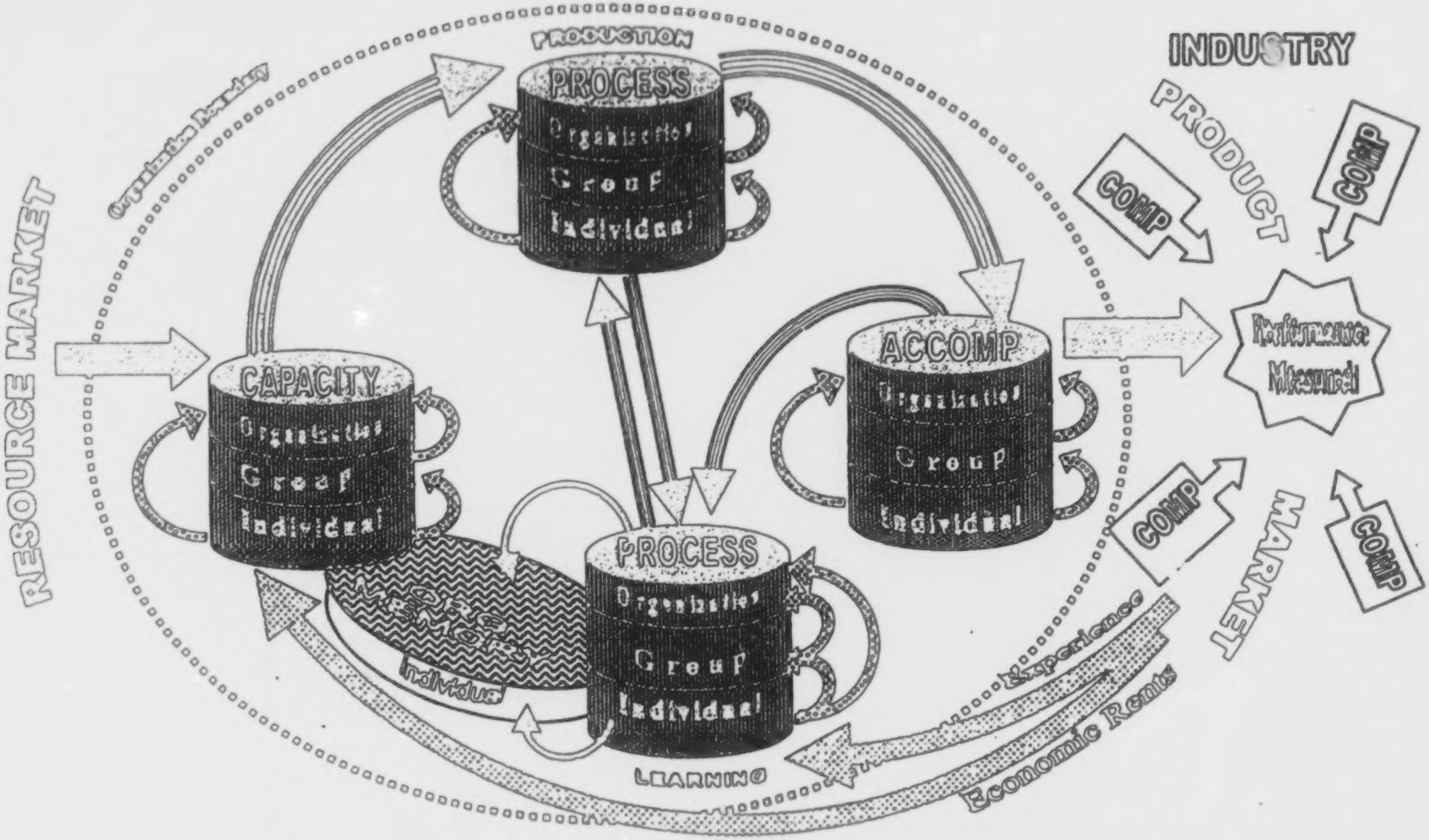
In its present form, the theory was generally considered to be too cumbersome to be easily accessible. Although it is highly unlikely that a theory of this scope could be tested as a whole, one reviewer observed that the propositions presented demonstrate that the theory is testable and thus falsifiable. Further development of propositions should point the way toward combinations of relationships that may be empirically tested.

Strengths and Limitations

Several insights emerged as this theory was developed that constitute contributions to the field of HRD. The first relates to organizational learning. The theory provides a new conceptual space for organizational learning in an organizational performance model by depicting learning process as parallel to production process at three levels but operating in the opposite direction—feedback rather than feed-forward. The views of several prominent multilevel scholars were applied to this conceptual frame to capture many of the social interaction effects that take place in the meso space between the individual and organizational levels. The explication of these meso level activities suggests ways in which previously ambiguous concepts related to organizational learning actually take shape.

Another contribution is the use of a comparative measure of performance—sustained competitive advantage—at the industry level. Using a measure at this level represents a paradigm shift for the micro-oriented disciplines. The field of HRD, in particular, has been focused primarily on *intra*-level performance measures over time. This practice can be misleading when measuring performance at the organizational level. Although organizations may experience performance improvements at individual and group levels, if these improvements fail to bring the organization to a competitive position at the industry level, the organization will ultimately fail despite these improvements.

A third contribution relates to the essence of HRD as a scholarly discipline. To date, the levels models most widely used in our field (e.g. Rummler & Brache, 1995; Swanson, 1996) have been focused on process. In these


PRODUCTION
PROCESS
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INDUSTRY
PRODUCT
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Organization Boundary
RESOURCE MARKET
CAPACITY
Organization
Group
Individual
ACCOMP
Organization
Group
Individual
Performance Measured
COMP
COMP
MARKET
PROCESS
Organization
Group
Individual
Individual
Experience
Economic Rents
LEARNING

Figure 5. A Partial Model of Organizational Performance

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models, organizations are viewed as collections of functions; individuals are addressed primarily by the organizational roles they play or the jobs they occupy; and the space in between is defined as process. These models guide the performance analyst to identify which job is responsible for what is done and when and how these tasks are interlinked in production process. To facilitate this approach, the "doing" is considered a generic function that can be accomplished in much the same way by anyone. Although these models have been effective in helping scholars and practitioners frame performance issues in a manner that renders them highly accessible, they may also have obscured our recognition of some of the most unique, human aspects of performance.

By contrast, *A Multilevel Theory of Organizational Performance*, operationalizes a social collective view of organizations by defining the space between the individual and organizational levels in terms of social interaction. When one considers the impact of social interaction, any combination of interacting individuals holds the power to create unique collective capacities and create accomplishments in different ways. These collectives may also learn and affect processes, outcomes, and capacities at supraordinate as well as individual levels. However, because social interaction is based in time, is often unpredictable, and is characterized by ambiguous boundaries, it is difficult to capture in theory and even more difficult to study empirically. This results in a highly complex theory that is more difficult to test and put into practice than those founded in task and process.

The limitations of the current study are those inherent in theory-building in general. The basis for these limitations was aptly described by Sutton and Staw (1995) who observed that organizational scholars engaged in theory-building "are forced to make tradeoffs between generality, simplicity, and accuracy" (p. 372). These tradeoffs leave the theory vulnerable to criticism. For example, establishing boundaries necessarily limits scope and thus generalizability. Overall, theories must be evaluated based on their ability to increase our understanding of a complex reality. But theories can never be more than "approximations" of reality, and "most verbally expressed theory leaves tacit some key portions of the originating insight" (Weick, 1995b, p. 387). Because any multilevel theory is necessarily more complex than theories that focus on one level at a time, the tension between scope and parsimony is a constant challenge. The question remains as to whether this theory achieves the appropriate balance between these essential elements.

Conclusion

The theoretical units representing performance aspects and levels developed for this theory were founded on traditional concepts, and, therefore, are not new. The contribution of this study lies in the inclusion of *all relevant interrelationships*. This is the multilevel dimension of the theory and the source of its complexity. The theory was developed with the intent of transforming traditional concepts of performance using contemporary multilevel thinking based on a social collective perspective. The result is a theory of questionable parsimony. Although some experts viewed the theory as integrating and holistic, others cautioned that its complexity may create an insurmountable barrier to research and application. The first view was more prevalent in the small group of experts participating in this study. However, if the latter view becomes dominant, the utility of the approach as conceived by contemporary multilevel scholars must be seriously questioned. This outcome is significant in itself and may indicate that this highly anticipated path to understanding is not a feasible one.

The development of *A Multilevel Theory of Organizational Performance* was guided by a desire to serve an integrative purpose that grows out of the holistic philosophy of systems thinking. The essence of this philosophy was most eloquently captured by an ancient Sufi teaching: "You think because you understand *one* you must understand *two*, because one and one makes two. But you must also understand *and*" (Meadows as cited by Wheatley, 1996, p. 241). The hope remains that multilevel theories such as this one will help illuminate both the forest *and* the trees of organizational performance.

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Is Knowledge in the Head or in the World?

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Despite the greater challenges to learning posed in demanding work environments, few studies examine the full range of factors needed to broaden our understanding of this important type of learning. This paucity of studies is due, in part, to an inadequate theory base for examining how skilled workers, technicians, professionals, managers and others attain competence in dealing with rapidly changing work situations. This paper begins to lay a theoretical foundation for this research using Dubin's theory building methodology.

Keywords: Theory Building, Work Activities, Work Skills

Working

Working consumes about three-quarters of our waking hours. Next to close social relationships nothing is more influential in our lives. For those who are challenged by their work, it can be a mixed bag of routine and novelty, rewards and disappointments, of fun and monotony. Some define success at work as simply learning to cope. For others acquiring fulfillment and expertise through work is a necessity that sustains career exploration until fulfilling work is found. Consider the following personal vignettes from the world of work:

> Sam is a 39-year-old control room operator on "Usra," a deep-sea petroleum production and drilling platform 65 miles offshore in the Gulf of Mexico. Sam's work schedule requires 14 days on the job followed by 14 days off. As deep-water drillers, Sam and others are involved with work that is enormously complex, with a number of workplace constraints—some technological, some human. The challenge, of course, is for everything and everybody (250 people) on this oil-and–gas platform to function smoothly. One mistake, and Usra could join the Exxon Valdez in the oil-and-environment-disaster history books. (from Lieber, (2000), Platform for Excellence).
>
> Software support technicians who provide direct customer service through hot lines face major challenges related to locating the sources of error underlying customer problems. Sifting through information from customers, technicians must decide what is and is not relevant to problems. Compounding the challenge, computer problems frequently interrupt customers' key business operations. Under the pressure of deadlines, customers are anxious to regain their lost computer capabilities. In addition, customers have diverse software and hardware configurations. The customer problems that technicians encounter are poorly defined and often conflict with the belief that software programs do exactly the same thing every time you run them. If a customer has encountered a problem since the last time a program was successfully run, something must have changed. Lacking a definitive diagnosis of the problem, the preferred solution is to tell customers to remove all unfamiliar system features until the software works again. The overriding principle is that anything that resolves the problem is justified and acceptable, as long as it works. Thus, the precision and logic suggested in theory are replaced by behaviors that are far more contingent and difficult to anticipate in practice. (from Brian T. Pentland (1997), Bleeding Edge Epistemology: Practical Problem Solving in Software Support Lines).
>
> "So you want to understand our work on an aircraft carrier? Well, just imagine that it's a busy day and you shrink San Francisco Airport to only one short runway and one ramp and gate. Make planes take off and land at the same time, at half the present time interval, rock the runway from side-to-side, and require that everyone who leaves in the morning returns the same day. Make sure that equipment is so close to the edge of the envelope that it's fragile. Then turn off the radar to avoid detection, impose strict controls on radios, fuel the aircraft in place with their engines running, put an enemy in the air, and scatter live bombs and rockets around. Now wet the whole thing down with salt water and oil, and man it with 20-year-old's, half of whom have never seen an aircraft close up. Oh, and by the way, try not to kill anyone." Senior Air Operations Officer, USS Carl Vinson. (from Rochlin, LaPorte, and Roberts (1987), The Self-designing High-reliability Organization: Aircraft Carrier Flight Operations at Sea).

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> "My job as a reservationist is like being on a production line, only I work at a computer on the Astrojet Desk. This is our airline service is for commercial and business customers. They're all frequent flyers who know they're supposed to be getting premium service. So they request things no one's ever heard of before, and they get them! And they want them now! One crazy request after another—like a production line. They monitor our calls and listen to some of our conversations, to improve customer satisfaction, they say. I'm never bored, but this sure is hectic—like a production line. I can hardly learn new things fast enough to keep up." Carol Gleason, 27, works for a major airline.

On any given day work involves activities that may range from dealing with routines to reacting to emergencies. The passages from the work vignettes above demonstrate expertise in action. While these accounts are, first and foremost, about work, they illustrate situations in which learning is closely enmeshed with the conduct of work itself.

Problem Statement

In many cases, learning and working are indistinguishable. Each of the passages above was elicited by a simple inquiry about the type of work these people do all day. When asked about their work, most people including those in complex work environments, relate what they do in terms of the activities and tasks they perform without mentioning the learning that is inevitably needed to acquire their skills. Unfortunately, however, many skilled workers, technicians, and professionals appear to be on their own in dealing with these situations. In many cases they must devise their own learning experiences, which frequently include trial and error. Today's work environments increasingly demand "thinking on one's feet"—learning that is tightly interwoven with the temporal and technical constraints of the work itself. What are the implications of this reality for education and training? Does this type of learning require more attention to the technical and environmental aspects of learning? At present little is known about the successful integration of learning and working.

Recent research in activity theory and cognitive science suggests that physical and environmental factors in the workplace influence how expertise is acquired and demonstrated on-the-job (Hutchins, 1995; Scribner, 1984; Suchman, 1987). This research emphasizes the need for a clearer understanding of how discrimination occurs between internal and external sources of knowledge, that is, *knowledge in the head* and *knowledge in the world*. Knowledge in the world represents knowledge that does not require encoding in long-term memory because it is readily available "in the world." That is, this knowledge resides within work activities as environmental artifacts such as operating instructions, job aids, and software programs designed to reduce the representational and computational load placed on the human agent (Norman, 1988; 1997). This perspective suggests that both knowledge in the head and in the world are essential for the development of the sophisticated expertise demanded in many of today's work environments.

Given the influence of physical and environmental factors in the workplace, how complete an understanding of work activities themselves must we have to fully harvest these potential advancements in our understanding of work-related learning? Frameworks and taxonomies have been developed to examine different types of work and their components. Taxonomies of work activities (Gagne, 1962; McCall, 1988; Swanson, 1994; Winter, 1987) and taxonomies of learned capabilities (Gagne, Briggs and Wager, 1988; McLagan, 1989) are considered individually later in this paper.

Several learning theories are also reviewed (experiential learning, situated cognition, and activity theory). Although these theories specifically address developmental processes, they were not designed to explicitly relate to various kinds of work activities. They do not address the influence the work itself has on this type of learning. Thus, our present theory base remains inadequate for providing a full understanding of how people interact with work activities, especially in today's rapidly changing work environments. New and better theoretical understandings in this area are needed.

Research Design

This paper has two purposes. First, it is intended to expand our present theoretical knowledge base to support future studies of this type of learning. Second, this paper is intended to contribute to advancing our knowledge of how to develop conceptual systems and, ultimately, how to build formal theory itself. Scholarly work in this area is necessarily guided by conventions that are appropriate for theory development in applied domains. The research design of this paper follows the theory building methodology of Dubin (1978). Dubin's philosophy and methodology for theorizing was developed for theory building in the behavioral sciences. The theoretical products of Dubin and others who have used this methodology demonstrate the value of this methodology for building theory in applied fields such as human resource development. Specifically, this paper will select, justify, and develop the conceptual elements and relationships that provide the basis for a theoretical system to support research on the type of work-related learning of interest here. The theoretical product will then be compared with taxonomies of work and present theories of learning to demonstrate the product's contribution to our knowledge of this type of learning.

Theoretical Formulations

Dubin's methodology for theory building requires attention to a pivotal task at the outset—specifying the major concepts and relationships that provide the basis for the theoretical system (Dubin, 1978). These components of theory building require the specification of the *units of the theory*—stating the key concepts or building blocks around which the theory will be developed, and developing the *laws of interaction*—the relationships among the units (concepts) of the theory that show the associations and the sequential or determinate relationships between and among the concepts. Brief descriptions of these elements follow as the basis of the proposed theoretical system.

Units of the Theory

The units of the theory are the concepts or building blocks around which the theory is developed. The central elements of concern for examining work and leaning in today's work environments are the worker and the work to be done. The essence of a system for understanding this phenomenon is the subject and object of the phenomenon—the worker and his or her work. The human agent and the work activities performed are two basic elements that form the basis for a carefully developed system of concepts and relationships to advance our understanding of this type of learning. These two units of the theory are briefly described next.

The Human Agent (Worker). The human agent possesses the knowledge and skills to perform various types of work. More important for work activity, the agent possesses the cognitive capabilities to process information and to assimilate new knowledge. These capabilities allow the agent to integrate existing knowledge with new knowledge as it is generated and needed to undertake new work activities. Cognitive processing allows existing knowledge and new knowledge to be reconciled and incorporated into a growing repertoire of expertise (Anderson, 1988). The human agent also demonstrates affective capacities at work—motives, aspirations, feelings, and anticipation of consequences of actions at work. A classification of affective behaviors was developed by Krathwohl, Bloom and Masia (1964). The psychomotor dimension of work behavior has been represented by Harrow (1972) as a taxonomy of psychomotor learning. Human cognitive, affective, and psychomotor capabilities constitute the potential of human agents for learning about and performing work activities.

Work Activity (Task). The work activity itself is central to the understanding of work-related learning. According to activity theorists, whose interests include but are not limited to work activities, the starting point and primary object of analysis is the actual process of interaction in which humans engage the world and each other. Sequences of work organized around motives constitute work activities. These activities are always part of a social system that has been culturally developed and that continues to change. The concrete contents of work activities include the tools, symbols, material resources, and procedural information that distinguish work activities from one another. The also includes the dynamics of the work activity (the process and modes of action through which it unfolds and its interaction with related work activities). Finally, all work activities occur in the larger context (that is, environment, organization, system) in which they are carried out. All work activities, in the abstract, are constituted by these elements. A specific component of a work activity is identified as a task. Thus, the *nature of a work activity* is conceptualized as having the following elements:

- *Contents* of work activity—the tools, symbols, materials, and procedural information of the work or task.
- *Dynamics* of work activity—the processes and modes of action through which it unfolds and its interaction with related work activities.
- *Context* of work activity—the environment, system, or other relevant context in which they are carried out.

The two main conceptual elements *(units of the theory)* whose interaction constitutes work performance are represented in Figure 1. (See Figure 1, *Agent-Work Activity Interaction)*.

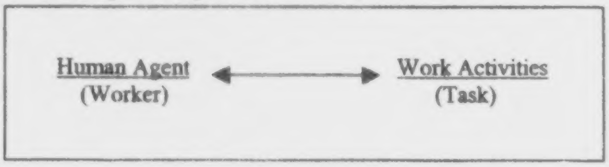

Figure 1. Agent—Work Activity Interaction

Conceptual Relationships Among the Concepts

The relationships among the concepts (units) of a theory are described in the theory's *laws of interaction* (Dubin, 1978). There are three general types of laws of interaction. These types of laws—categoric, sequential, and determinant—encompass all forms for expressing relationships among the concepts of a theory. Categoric laws state that values of a unit of the theory are associated with values of another unit. Sequential laws use a time dimension to describe the temporal relationships among two or more units. A determinant law of interaction is one that relates determinate values of one unit of the theory with determinate values of another unit. Since determinant laws of interaction describe specific relationships among units with determinate values, they are used in the physical sciences where such precise relationships are more common than in the behavioral sciences. The relationships among agents work activities are categoric laws since each specifies a relationship in which one or more conceptual elements *are associated with* (versus *determined by*) other elements of the theory. These conceptual relationships are described next.

Interaction of Agent and Work Activity. The interaction of agents with work activities may involve the movement of agents from one job (or work role) to another. Work is frequently a stimulus for novelty and innovation. Many are drawn to certain types of work because the nature of the work invites human creativity and innovation. Work that ceases to provide this type of stimulation (e.g., a once-innovative product or service that reaches maturity) can no longer engage those who are attracted by creativity, innovation, and entrepreneurship. Workers who remain with this type of work experience stagnation. Stasis in agent-work activity interactions necessitates movement among jobs if worker growth is to continue. Conversely, agent-work activity interactions involving learning are those in which the work activity and agent are both dynamic. There are multiple manifestations of dynamic agent-work activity interactions. These are classified in two categories: (a) the *rates of change* between and among agents and work activities, and (b) the *types and combinations of change* involving agents and work activity. Each of these agent-work activity dynamics is briefly described next.

First, the *rates of change* may vary between one or both of the constructs (the agent and/or the work activity). With the ever-increasing influence of technical innovations, the rate of change in work processes is increasing due to the integration of technology. Change is manifested in many human agents as their motives, aspirations, expertise and other work-related characteristics continuously grow and change over time. With respect to the possible effects of these changes, it is often the *relative* rates of change between and among agents and work activities that are of particular interest. That is,

Second, various *types and combinations of change* are possible among the two concepts. The constituent elements of the agent (human capabilities) and of work activity (its content, dynamics, and context) interact in different combinations as various types of change occur. A simple combination of change types might involve both the agent and the work activity as would occur with an ergonomic modification of the workplace after a worker illness or injury. A complex combination of change types might involve fundamental work process redesign that includes new materials and process dynamics. This would require more sophisticated change in the effected agents, who would need retraining and new skills.

Learning as change

The *rates of change* and the *types and combinations of change* among agents and work activity provide the basis for examining changes involving the phenomenon of primary interest—learning at work. Among the various types of change, we would expect some to involve greater opportunities for learning than others. For example, a simple change in work content may require little or no learning (e.g., a change in product packaging). On the other hand, change involving the type of work process redesign mentioned above affords a greater opportunity for learning, as it requires the acquisition of new skills.

Variability in learning opportunities is also associated with different rates of change among agents and work activities. Rapid change in work processes is fast becoming the norm in many work settings. A high degree of change in work is associated with a greater demand for agent expertise. As stated above, the relative rates of change between agents and work activities are of concern when change in one outstrips the capacity for change in the other. For example, internet-based innovations in commercial and business transactions are multiple examples of the changing context and dynamics of work activities. Many workers have anticipated these developments and have upgraded their work skills accordingly. For others, these developments reveal their inability to keep pace with the accelerated rate of technological change in how work is accomplished. The agent-work activity interactions that have potential for learning are those in which the *rates* and *combinations of change* between agent and work activity can be determined and related. These are the work situations of primary interest in this paper.

Work Activities and Learning

It is possible that the degree of change, and of learning, required by agents is related to whether change involves the contents, dynamics, and/or context of work activities. For example, it is likely that simple changes in work contents require less learning than more complex changes involving the context and dynamics of work activities. The latter changes in work activities involve the processes through which work activity unfolds and change in how the work and the agent(s) who perform(s) it interact(s) with other related work activities. Clearly, these are sophisticated changes that involve other agents and work processes. They would seem to place greater demands on the agent's capacity for learning than a simple change involving new materials only.

This relationship is expressed in Figure 2. (See Figure 2, *Work Activities and their Dynamics).* The circular figures in the model represent the nature of work activities. The vertical and horizontal axes that bound the model represent the major dynamics in the work activities discussed in this paper—the *change* in work activities accounted for by their levels of complexity and degrees of integration.

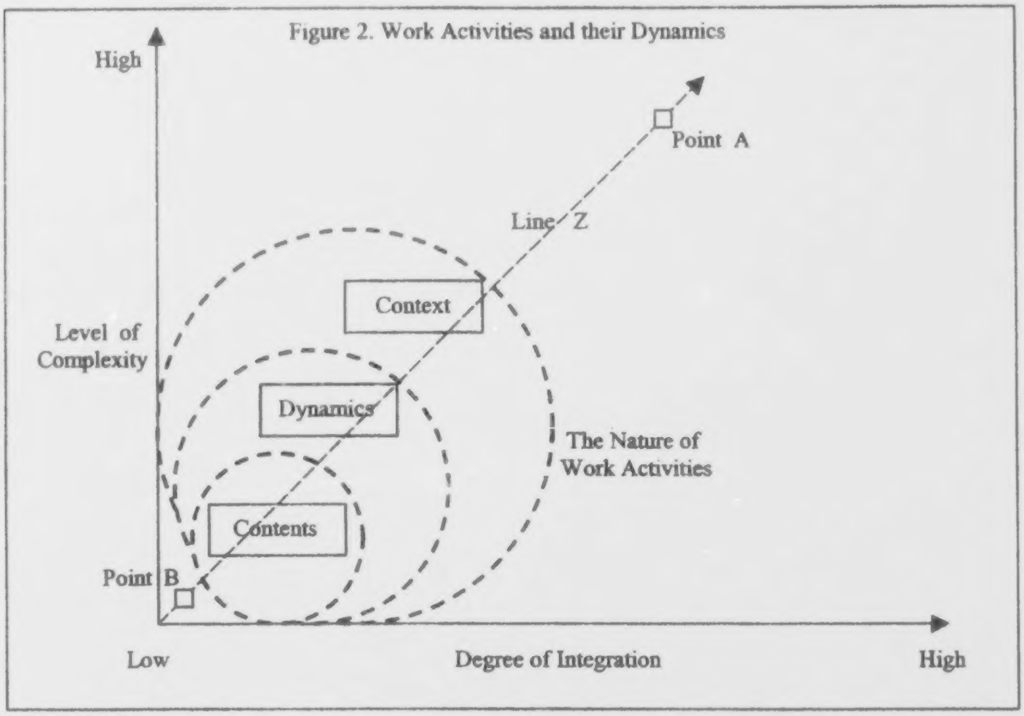
Figure 2. Work Activities and their Dynamics

The *level of complexity* of work activities varies from high to low and is represented in Figure 2 by the vertical axis. Work activity *contents, dynamics,* and *context* are each characterized by their own levels of complexity. For example, the contents of an airline baggage handler's work activities may be quite straightforward, yet the context of this work, a busy international airline terminal, may be complex. Conversely, the contents of a college professor's work activities may be complex, yet the context of this work, especially if it is devoted primarily to classroom teaching, is fairly straightforward. While the levels of complexity of work activity *contents, dynamics,* and *context* are clearly interrelated in most work environments, the concept of complexity is conceptualized here as having independent as well as interdependent effects on the three components of work activity.

The *degree of integration* can also vary within and among the components of work activities. This is represented in Figure 2 by the horizontal axis. Low integration among the *contents, dynamics,* and *context* of work activity means that there is little relationship between these components of work activity. The comparison of two different kinds of work activity helps distinguish low from high degrees of integration in these components. The work of an interagency courier demands competence in the contents and, to a lesser degree, dynamics of this work. However, it requires little or no expertise in the context of this work (i.e., interagency systems). The courier simply delivers materials to the right place at the right time. Conversely, the work of an information systems director requires a great deal of integration among the *contents*, *dynamics*, and *context* of work. The competence of the information systems professional not only includes the technical aspects of information technology, that is, the *contents* (the tools, symbols, materials, procedures) and *dynamics* (the processes and modes of action) of this work, but also knowledge of the larger contextual issues required for successfully integrating information systems among diverse departments and functions of the organization's sub-systems. Since the degree of integration in work activities applies across the components of *contents*, *dynamics*, and *context*, this construct is conceptualized as having interdependent effects on the components of work activity.

The Dynamics of Work Activities

The dynamics of work activities represented in Figure 2 suggest that important contrasts exist between different types of work. These contrasts illustrate the potential importance of the nature of work activities to our understanding of agent-work activity interactions and, ultimately, to the phenomenon of work-related learning. Consider a hypothetical continuum represented in Figure 2 by the dotted diagonal line Z. The point at the upper right end of line Z designated as point A represents a work situation characterized by both a high level of work complexity and a high degree of work integration. In contrast, the point at the lower left end of line Z represented by point B is a work situation characterized by both a low level of complexity and a low degree of integration in the work activities. These points in Figure 2 represent two types of work activities with distinctive features that relate both to the nature of work and to work-related learning. An example of the contrast between these types of work will illustrate the potential importance work activity has to our understanding of agent-work activity interactions and, ultimately, to the phenomenon of work-related learning.

An example of contrasting work activities. The worldwide shipping business has grown into a huge industry that has undergone a fundamental transformation since its inception as a critical business function after World War II. Shipping packages to locations in distance countries used to be a gamble involving questionable arrival at the right location and even greater concerns about the timeliness of deliveries. Actual confirmation of delivery by the sender could only occur through written or verbal contact with the receiving party. Personnel working for shipping companies were concerned primarily with the physical movement of packages. The tracking of packages moving throughout the company's shipping system was not yet an important concern. Contact by a customer with a shipping company representative to determine the location of a shipped package might yield information only that a given package had not yet arrived and was likely still in transit.

Today, uncertainty regarding the tracking of packages is no longer tolerated by either customers or shipping companies themselves. Comparing the work activities of the former company representative with today's practices that yield precise shipping locations and timetables serves as a useful contrast in work activities that illustrates the different levels of complexity and integration among their components. The shipping worker in the earlier example was focused on a narrow portion of a linear shipping process in which the functions of materials handling, pricing and labeling, and providing the transportation (i.e., delivery driver) accounted for a vast majority of shipping services. The work activities followed basic procedures composed of relatively simple tasks. Representing point B in Figure 2, the work of service representatives, materials handlers, or delivery drivers required little awareness of the larger work context, as long as they performed their particular tasks, however narrow in focus, reliably and efficiently. Tracking package locations, if done at all, was someone else's job.

In contrast, working knowledge of shipping timeframes and locations is now required of a majority of shipping company job categories. Representing point A in Figure 2, today's work activities are likely to require the use of computers, the handling of both packages *and* information from shipping databases, and broad contextual knowledge of the shipping business that includes the nuances of shipping practices in foreign locations and diverse cultures. This work is both more complex and fully integrated than the work activities of traditional employees.

Discussion—The Nature of Work Activities and their Implications for Learning

Any given work task, including those represented by points A and B in Figure 2, exists apart from the person(s) who might perform the task. Work activities (tasks) are conceptually distinct from human agents (workers). Each of these key concepts brings distinctive features to agent-work activity interactions. Agent-work activity interactions provide the context for the phenomenon of interest—work-related learning. The nature of work activity itself contributes a substantial measure to the dynamics of this interaction. The contrast between the two types of work shown in Figure 2 was intentionally drawn as a simple and straightforward example. Yet in today's rapidly changing world of work, countless situations exist that illustrate starker contrasts in *the nature of work activities themselves*. The contrasting work of the grocery bagger and the research scientist is one of an infinite number of such examples. The nature of work activities provides the content of work performance, the substrate within which the agent and work activity react. Examining the nature of the work to be performed and how the agent experiences and, ultimately, learns to conduct such work activities holds great promise for advancing our understanding of work-related learning.

Accounts of the influence of the work itself on this type of learning, however, are missing altogether in most theories of learning. Experiential learning theory, the theory of situated cognition, and activity theory are briefly reviewed next. After the review of theories, several taxonomies of work activities are then explored to examine how well these theories and taxonomies account for the character and dynamics of work activity.

Experiential and Situated Theories of Learning

The *experiential learning model* offered by Kolb (1984) frames learning as a process based in experience in which a person encounters a new idea, reflects upon it, compares it to what else he or she knows, tests it in a real situation, reflects on the meaning of the consequences of the action, and then formulates a new theory of action or revises an existing one. Schon (1983) described the pragmatic use of knowledge and problem solving used by professionals on the job in the *reflection-in-action* model. *Reflection-in-action* model is an iterative process that moves through (a) assessment of the situation, (b) testing of one's preliminary sense of the problem through experiments, (c) examination of results, and (d) reassessment leading to another cycle of problem reformulation (Schon, 1983, 1987). One's preliminary assessment of a unique and uncertain situation is tested to see if a plan based on the assessment will lead to progress in resolving the problem. One conducts an experiment to examine the validity of one's preliminary assessment. The consequences may include unintended changes which give the situation new meanings. According to Schon (1983), "the situation talks back, the practitioner listens, and as he appreciates what he hears, he reframes the situation once again" (p. 131). Learning occurs through an iterative process of purposeful actions, discovered consequences, implications, reassessments, and further actions.

Situated Cognition

Unlike conventional theories of how learning occurs in formal structured settings, situated cognition starts with activity the activity itself—a position fully consistent with *activity theory*. Situated cognition views learning through an "activity—perception—representation" model, in which the cognitive dynamics of learning appear less open to the preconceived knowledge schemas that are dominant in formal instruction (Brown, Collins and Duguid, 1989). When people lack experience with a situation or are introduced to a new concept, providing them with a model or description of the new situation or concept is a useful catalyst for forming mental representations of what is learned. While inexperienced people may accept such a model, they will try to integrate it with new activities and perceptions, and any past experiences that they may consider relevant. The model will become part of the present context for learning, in which the learner's activities and perceptions precede mental representation.

Activity Theory

Activity theory attempts to explain purposeful behavior by focusing on the structure of the activity itself. Leont'ev (1981), a development psychologist and colleague of Vygotsky, developed the activity theory as reviewed here. For Leont'ev, the appropriate unit of analysis for studying purposeful behavior in the workplace is the activity itself—the *task*. If we are interested in accomplishing real world tasks, the *task* should the unit of analysis, not isolated, abstracted components of the task. According to Leont'ev, an activity can be analyzed at three levels. First, the motivation of the activity, at the highest level of organization, provides coherence to the other levels. At the next level are goal-directed actions, carried out in the service of the activity. At the third level are operations, or the specific conditions under which actions are carried out. For example, if our action is travelling from point A to point B in the service of some activity, whether we walk or drive is an operation that depends on the distance and availability of a car. Operations, which depend on the circumstances, refer to how an action is done.

Schemes for Classifying Work Activities

Roughly forty years ago, Gagne first noted that the issue of highest priority for users, designers, and scholars of training and education for work is the specification of *what is to be learned*. As a scholar of instructional systems himself, Gagne's (1962) seminal treatise in *American Psychologist* alerted us to the importance of first examining the tasks to be learned in order to *specifically* address the issue of what the training program is intended to accomplish. Later, he developed a taxonomy of capabilities to be learned that still serves as a starting point for the design of work-related instruction (Gagne, Briggs and Wager, 1988).

Winter (1987) described the taxonomic dimensions of work expertise as a way of assessing its strategic value to organizations. Winter used several dimensions of knowledge and work tasks to develop several continua along which various types of work expertise could be described and classified. These dimensions of work expertise include their observability, complexity, articulability, a procedural-conceptual continuum, and an independent-systems element continuum. McCall's (1988), who studied experiential learning, produced a taxonomy of events from the work experiences of subjects that consistently provided opportunities for their learning. These events were classified as (a) work assignments (for example, initiating or fixing a project, line to staff assignment), (b) hardships (for example, business failures, personnel performance problems), (c) key interactions with people, (for example, role models), and (d) other events (for example, first supervisory experience). These events (17 in total) were integrated with 34 areas of learning content to produce an experiential learning matrix.

Swanson's (1994) taxonomy of performance specifies five levels of work performance in the context of two broader systems goals: *maintaining a system* or *changing a system*. Within the systems maintenance category are the levels—understand, operate, and troubleshoot. Within the systems change category are the levels—improve and invent. Each of these five performance levels is associated with a distinct set of work objectives and outcomes. This taxonomy of performance effectively addresses the perennial confusion associated with acquiring the expertise to maintain systems versus the expertise needed to change or improve them.

McLagan, who directed the seminal ASTD project that produced the *Models for HRD Practice*, developed a classification of specific competencies derived from four general categories of work—technical, business, intellectual, and interpersonal (McLagan, 1989). These categories provide the framework for a roles-competencies matrix that includes more than two dozen skills derived from work activities such as electronic systems skill, performance observation skill, computer skill, and cost-benefit analysis skill.

These taxonomies of work activities (Gagne, 1962; McCall, 1988; Swanson, 1994; Winter, 1987) and taxonomies of learned capabilities (Davenport and Prusak, 1998; Gagne, Briggs and Wager, 1988; McLagan, 1989) examine different types of work and their components. While they provide useful schemes for classifying the various types of work activities that frequently constitute the *content* work-related learning programs, they do not address directly the *processes for learning* about these work activities and acquiring the skills to perform them.

Conclusions and Implications for Further Research

A central question, and perhaps the most important question for educators at this point, is how complete an understanding of work activities themselves, beyond the theories and taxonomies discussed above, must we have to fully harvest these potential advancements in our understanding of this type of learning? In a word the answer is, a much fuller understanding of work activities is needed than currently exists. Present studies of workplace learning focus primarily on the learner and context variables related to the learner. New insights into individual learning variables have come without a corresponding increase in our understanding of the work activities themselves. Few studies contain the rich description of work activities needed for a greater understanding of work-related learning. Only the studies of Scribner (1984), Suchman (1987), and Hutchins (1995) seem to adequately address *both* the characteristics of the agent *and* of the work activity that is needed for a balanced understanding of this phenomenon.

Further research is needed to examine the source of expertise on work activities. If greater understanding of work activities is needed, then where does this expertise come from? The traditional source of work expertise is the subject matter expert (SME). The SME has been used by educators seeking to design learning experiences in specific areas of work content. However, SMEs are conspicuously absent from much of recent literature on work-related learning. Their absence reflects the changing nature of the work itself. Work activities now evolve more quickly than in the past. Fewer SMEs exist since less time is available for gaining the experience needed to achieve this status. Instead, employees who are confronted with changing work activities become *in situ learners,* and by default, acquire the responsibilities formerly held by SMEs. Thus, increasingly the learner is the work activities "expert." This is clearly inconsistent with present theories and models of education for work.

Today's work environments demand greater flexibility for learning and working that enables workers to meet changing conditions. Our present theory base is inadequate for addressing this situation. Scholars who value this type of learning cannot afford to remain disengaged from the theoretical and research challenges posed by today's work environments. New and better theory in this area is needed. This will require further research on both the content and process of theorizing.

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A Performance Perspective Synthesizing Intellectual Capital, Knowledge Management and Organizational Learning

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The purpose of this paper is to advance the discussion of theory building aimed at improving "knowledge worker productivity". The article presents the topic in two parts: 1) revised definitions of the constructs intellectual capital, knowledge management and organizational learning; which are used to expand the definition of human capital; 2) a systems view of the components of human capital.

Keywords: Intellectual Capital, Knowledge Management, Organizational Learning

Importance of Knowledge

Ever since pioneering work on human capital in the 1960's, the organizational value of employees' knowledge and skills has received increased attention. As the economic emphasis has shifted from production/manufacturing to service and information, "knowledge and human expertise are increasingly recognized for what they are: the source of value creation" (Lank, 1997, p. 306). A number of socio-economic theorists have echoed this attention to the increasing importance of human mental capabilities and their relationship to organizational survival and advancement. Drucker (1993) describes the "knowledge society" as a shift from emphasis on capital and production resources to emphasis on "knowledge" resources. He differentiates a "knowledge society" from an industrial society, by stating, "knowledge has become the resource, not just another resource alongside the traditional factors of production – labor, capital and land)." Quinn, Anderson, and Finkelstein (1996) reinforce Drucker (1993) when they recommend, "leveraging the organization's intellectual capital" and cite US government reports showing software, medicine, communications, and education (knowledge work) provide 79 percent of all jobs and 76 percent of all U.S. GNP. Romer (1993) points out the primary difference between industrial capital and human capital, calling "knowledge", the only unlimited resource and the one asset that grows with use. Stewart (1994) warns companies to focus less on what they own and more on what they know: their IC. (Drucker, 1999) summarizes the importance of humans in organizations with the following statement (p. 79)

> "the most important contribution of management in the 21st century is increasing the productivity of knowledge work and knowledge workers" (highly qualified and educated professionals converting information into knowledge largely through their own competencies. (Svieby, 1997).

Accepting Drucker's (1999) statement creates urgency for organizational researchers (themselves knowledge workers) to develop theory for describing, predicting and explaining "knowledge worker productivity." Consequently, an increasing number of scholars in the fields of economics, information technology, human resource development, management, psychology, organizational behavior, organizational theory, sociology, and strategy have begun theorizing about "knowledge worker productivity" and its importance to organizations.

Edvinsson and Malone (1997) proposed a theory of "value capital" as the interaction of human capital, organizational capital and customer capital. Harris (2000) proposed a more dynamic theory of IC using human capital and systems theory. In (1995), Nonaka and Takeuchi advanced a theory of knowledge creation in Japanese firms. At about the same time, Leonard-Barton (1995) published a study of knowledge management in manufacturing firms and most recently, Torraco (2000) introduced a theory of knowledge management using Dubin's (1978) theory building methodology. Management and organizational scholars recognize the importance of "knowledge worker productivity" by focusing on organizational learning (Cangelosi and Dill, 1965). Crossan, Lane, and White (1999) offer an organizational learning framework identifying strategic renewal as the underlying phenomenon of interest as a precursor or a component of a more complete theory of OL.

Most organizational researchers agree on the importance of humans to organizations and that the knowledge bases mentioned earlier share common themes. Crossan et. L (1999) reinforces this assertion by noting that the fields of *intellectual capital* (Edvinsson and Malone, 1997; Quinn, Anderson and Finkelstein, 1996; Stewart, 1997), *knowledge*

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creation (Nonaka and Takeuchi, 1995) and *management* (Conner and Prahalad, 1996; Davenport and Prusak, 1997; Grant, 1996; Kogut and Zander, 1992, Svieby, 1997; Torraco, 2000), and organizational learning (Cangelosi and Dill, 1965; Daft and Weick, 1984; Dixon, 1993; Fiol and Lyles, 1985; Huber, 1991; Crossan, Lane and White, 1999), share common ground, namely, "recognizing the importance of knowledge to the success of the enterprise (p. 524)." Despite this acknowledged importance and research attention from such diverse perspectives, there is a scarcity of useful language for discussing the subject "knowledge worker productivity". Winter (1987, p. 184) summarizes this dilemma,

> "Within each microcosm of expertise or skill, there is of course, a specialized language in which that particular subject can be discussed. At the opposite extreme there is terminology that is very broad in scope, such as information, innovation, skill, technology transfer, diffusion, learning and of course, knowledge and competence."

Research Question

How can these related but diverse knowledge bases inform each other to produce theory about the role of *knowledge* in organizations and organizational performance?

Two major tasks seem necessary to answering this question. First, is to define the phenomena of interest with sufficient clarity and a high enough level of abstraction to reduce some of the confusion generated by the many different perspectives and terminology. Since, concepts are the building blocks of science (Dubin, 1978; Klimoski, 1991), Osigweh (1989) notes that the need for developing precise concepts cannot be overstated. Furthermore, ill-defined concepts produce imprecise research results making it difficult to produce *cumulative* knowledge that is (Achinstein, 1968). Second, is postulate a theoretical relationship among these concepts, which points researchers towards the questions requiring research into improving "knowledge worker productivity".

Accordingly, the purpose of this paper is to advance the discussion of theory building aimed at improving "knowledge worker productivity". The article addresses the topic in two parts: 1) revised definitions of the constructs IC, KM and OL; which are used to expand the definition of human capital; and 2) a systems view of the components of human capital.

Knowledge Bases Related to Human Capital

Intellectual Capital

Table 1 details the variety of definitions of the concept. An analysis of these definitions reveals areas of both agreement and disagreement among the selected authors. Klein and Prusack, Stewart and Quinn fail to capture the importance of organizations as "collectors " and "amplifiers" of knowledge and lack the depth of definitions proposed by Brooking, Edvinsson and Malone and Sveiby. Furthermore, while Brooking, Edvinsson and Malone and Sveiby's definitions present a number of common elements and even use common terms, they disagree about categories or classification of the various products derived from IC. For example, Brooking's Market Assets (repeat business percentage, branding, market dominance) and Sveiby's External Structure (brand names, trademarks, reputation and image) contain many of the same elements, but mix different levels of tangibility. It also seems necessary to recognize the differences between those IC assets represented by individuals (knowledge, expertise) and the synthesis of those qualities represented in the collective (processes, methods). The three areas of agreement among the more authoritative definitions are the importance of individual knowledge; the collective results of human expertise enable the organization to perform and the combination of these two elements results in output that both increases in value and is transferable.

Blending these definitions produces three elements of IC:

Human asset represents the capacity, inseparably embedded in the nervous system of a specific individual, to act in a wide variety of situations in fulfilling the organization's mission. This asset forms the foundation for the accomplishment of work in an organization. Examples include intellect, know what, know how, know why, care why, knowledge, skills, competence, expertise and experience.

Structural assets embody both intangible (often tacit) and tangible, collective outputs of human cognitive work essential to accomplishing work in an organization. This definition emphasizes the group/process, and organization levels, as well as the combination and synthesis of many human assets represents the capacity to perform tasks too complicated or too large for individuals (Dixon, 1993). This concept does not include physical assets such as computer systems or databases, because they are tangible assets and thus quantifiable and transferable. Examples include organizational culture, concepts, models, processes and operating technologies.

Intellectual property assets created as output of human cognition are a discrete bundle of legally defined and enforceable property rights (Winter, 1987, p. 165), which can be given a relatively precise economic value and can be conveyed from one owner to another. Examples include patents, copyrights, trademarks, brand names and "goodwill (customer capital)".

Based on these elements, this article defines *intellectual capital* as the unique combination of human, structural, and intellectual property assets, which constitute an organization's capability to perform in the current environment and position the organization for future performance.

Knowledge Management

Before defining knowledge management, it seems necessary to recognize the complexity of the concept and the resulting controversy about "managing knowledge". This complexity arises from the fact that knowledge is uniquely human and therefore subject to the complexities of individuals and the context in which it is embedded. Another level of complexity concerns the two knowledge types generally accepted by many theorists from applied fields and described by Polyani (1962) as tacit and explicit. According to Polyani, tacit knowledge comprises intuition, unarticulated mental models and embodied technical skills that are personal and context specific and therefore hard to formalize and communicate. Whereas, explicit knowledge is codified and transmittable in formal systematic language or symbols. Both types of knowledge are context specific and relational in that they depend on the situation and are created dynamically in social interaction (Tonaka and Takeuchi, 1995). There is general agreement among epistemologists that the majority of individual human knowledge is tacit. This characteristic makes knowledge difficult or some would say impossible to "manage" as a supervisor would to ensure completion of a manual task or as information technology professionals conceive of managing information.

Without minimizing the cogency of either side of this disagreement, this article accepts this controversy and chooses to move past it to advance theory discussion concerning "knowledge worker productivity". Like IC, definitions of KM from a variety of sources (Table 2) were examined for similarities and differences to craft a more comprehensive and coherent definition.

Torraco's proposed theory of knowledge management uses Dubin's (1978) theory building methodology and combines many of the common elements found in the definitions in Table 2, such as capturing and using knowledge and expertise and improving organizational performance and creating value. But, his specification of a complete theory extends and surpasses these definitions and forms the basis for this author's definition of knowledge management.

Based on Toracco's (2000) theory, *knowledge management* is a dynamic transformation process supported by an appropriate organizational culture through which individual, group and organizational knowledge is accessed and codified to produce organizational learning. The next section addresses the definition of organizational learning.

Organizational Learning

Organizational learning has been a research subject more often and for a longer period of time than the other two constructs. It has been defined in a number of ways. An analysis of these definitions reveals a broad range of perspectives and little apparent consensus. Only Argyris and Schon and Miller directly address the role of individuals in their definitions of OL. Despite this lack of specific mention, the implication remains in every definition of organizational learning that organizational learning begins with individuals. With the exception of Huber, who describes more the state of OL, most of these authors stress action as the crucible that signifies OL has occurred. All of these authors stress that OL is an organization level phenomena and represents a change in the "system state". Daft and Weick (1984) express this succinctly, "organizations represent patterns of interactions among individuals, especially through communication, and therefore learning in organizations to a large extent depends largely on the ability to exploit shared common understandings. Clearly, there is agreement that organizational learning is a multi-level phenomenon (individual, group, enterprise). Finally, although only Dixon, Fiol and Lyles, and Nevis, et. al. directly address performance and effectiveness, a close examination of the majority of the definitions reveals the implication that OL produces survival and enhanced success. Torraco's KM theory indirectly summarizes these areas of agreement concerning OL.

Torraco (2000) describes three processes, which form the KM system output– learning (individual and collective), knowledge creation and knowledge use. This author asserts that these are the components of OL and agree, that they are the output from the KM process. Earlier, the definition intellectual capital incorporated both individual and collective learning, therefore in this description; IC replaces learning. Knowledge creation is a process through which new ideas and information are created and synthesized into knowledge "from the inside out, in order to redefine both problems and solutions and in the process, recreate the environment (Tonaka and Takeuchi, 1995). Knowledge use refers to the speed and methods by which organizations bring knowledge to product and process development (Fiol, 1996).

Consequently, *organizational learning* is the multilevel output from a knowledge management transformation process consisting of three elements; knowledge creation, knowledge use and enhanced IC, which combined, improve the enterprise's capacity to act in pursuing survival and success. Using these three components, "human capital" can be redefined.

Human Capital

Human capital theory (HCT) (Becker, 1993) indicates that individuals, organizations and society benefit from investments in training, educating and developing people. While HCT is a well specified, but limited economics theory, Sweetland (1996) suggests researchers use HCT to evaluate and synthesize studies from "diverse disciplines and specializations such as economics, sociology, psychology, human development and business [management and organizational behavior]." This view coincides with the steady rise in interest from both organizational researchers and practitioners regarding the use of "human capital" to improve organizational performance.

Originally formulated to facilitate organizational comparison decisions between investing in "human capital" and investing in other forms of capital, the analogy between human and real capital breaks down in one important respect. Whereas, human capital is inseparable from a specific individual and thus cannot be owned except by that individual., property rights over tangible capital are readily transferable from one owner to another.

The need for theory to "improve knowledge worker productivity", Sweetland's suggestion and the redefined constructs of IC, knowledge management and organizational learning suggest an expanded view of organizational human capital:

Intellectual capital is the unique combination of human, structural, and intellectual property assets, which constitute an organization's capability to perform in the current environment and position the organization for future performance.

Knowledge management is a dynamic transformation process supported by an appropriate organizational culture through which individual, group and organizational knowledge is accessed and codified to produce organizational learning.

Organizational learning is the multilevel output from a knowledge management transformation process consisting of three elements; knowledge creation, knowledge use and enhanced IC, which combined, improve the enterprise's capacity to act in pursuing survival and success.

Using these three components, the redefined *Human Capital* represents the capability embodied in IC transformed through a knowledge management process to produce organizational learning for the purpose of ensuring enterprise survival and success. Based on these definitions, one potential view of the relationships can be examined.

Human Capital Through Systems Theory

Using systems theory at the firm level, many disciplines previously viewed organizations as "black boxes", focusing on the resources going into the box, the products and services being output and the effects of the external environment. The rise in the importance of knowledge and knowledge work forces the theorist to focus on the organization's internal components. Figure 1 conceptualizes the three components of human capital defined earlier as a system. IC serves as the input to the KM transformation process, which produces OL. OL balances the tension between creating new knowledge and using existing knowledge to ensure organizational performance and survival. As Figure 1 shows, OL enhances IC, informs the KM process and by so doing, assumes continuous development of the firm's core competencies leading to improved performance.

Implications for Human Resource Development

As the value of a firm's human capital has achieved recognition as the cornerstone of competitive advantage or increased organizational survival and success, there has been a corresponding rise in the recognition that human resource development has a significant role in both the theory and practice of identifying, developing, leveraging and managing those resources to realize that advantage. The more precise definitions of the constructs related to human capital will facilitate discussion among researchers in the variety of disciplines that will be needed to gain a true picture of the impact of human capital as an organization's primary resource. Furthermore, by overlaying the systems view of human capital onto an organization, researchers can assess both individual components such as IC and/or any of its subordinate constructs without losing sight of the relationship of those components to the higher level construct or the organization as a whole.

Having well-constructed definitions of both human capital and its subordinate constructs will also aid HRD practitioners as they strive to overcome a senior management mindset which views all elements of capital as equal. The ability to swiftly and succinctly describe how the human capital elements relate to the organization's core competencies, how those competencies can be used to achieve value and increased competitive advantage and how continued development of each element of human capital leads to sustained advantage will be invaluable.

Figure 1: A Systems View of Human Capital Synthesizing Intellectual Capital, Knowledge Management and Organizational Learning (©2000)

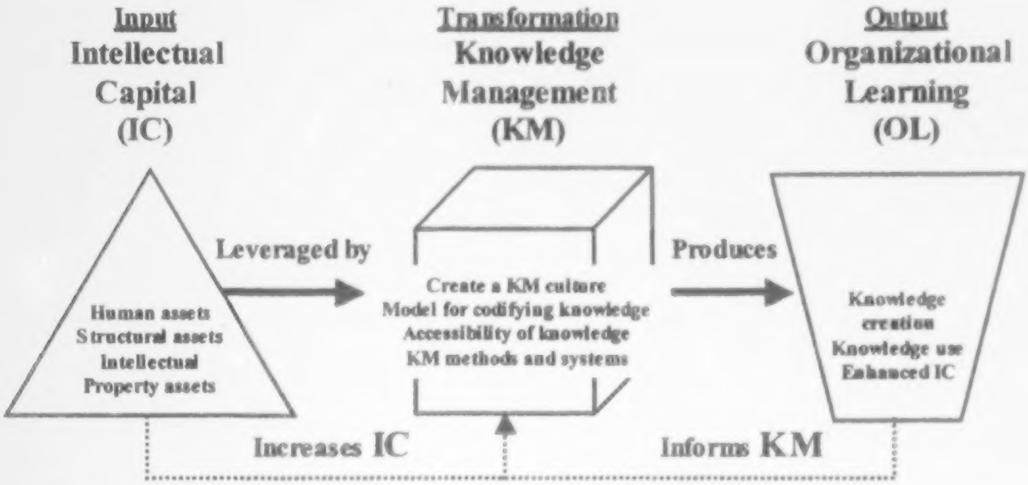
Input
Intellectual Capital (IC)
Transformation
Knowledge Management (KM)
Output
Organizational Learning (OL)
Human assets
Structural assets
Intellectual Property assets
Leveraged by
Create a KM culture
Model for codifying knowledge
Accessibility of knowledge
KM methods and systems
Produces
Knowledge creation
Knowledge use
Enhanced IC
Increases IC
Informs KM

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Table 1: Definitions of Intellectual Capital

Author	Definition
Klein and Prusack (1994)	intellectual material formalized, captured and leveraged to produce a higher value asset
Quinn, Anderson and Finkelstein (1996)	begin their discussion with Webster's definition of intellect as "knowing or understanding; the capacity for knowledge, for rational or highly developed use of intelligence." They describe four types of organizational IC in increasing order of importance: 1) Cognitive knowledge (or know what); 2) Advanced skills (know how); 3) System understanding and trained intuition (know why); 4) Self-motivated creativity (care why).
Brooking (1996)	defines IC as comprised of four dynamic assets, which must be considered together when judging organizational potential: Human centered assets - comprise the collective expertise, creative capability, leadership, entrepreneurial and managerial skills embodied by the employees of the organization; Intellectual property assets - include know how, copyrights, patent, semiconductor topography rights, various design rights as well as trade and service marks, Infrastructure assets - are technologies, methodologies and processes, which enable the organization to function. Examples include risk assessment methods, sales force management techniques, market or customer databases, and communication systems such as e-mail and teleconferencing systems; and Market assets - represent intangible organizational potential [for performance]. Examples include repeat business percentage; value associated with goodwill such as branding, and market dominance.

Table 1: Definitions of Intellectual Capital

Author	Definition
Edvinsson and Malone (1997)	possession of the knowledge, applied experience, organizational technology, customer relationships and professional skills that provide a competitive advantage in the marketplace: Human capital -- people who work in a system themselves with all of their knowledge, experience and capacity to grow and innovate Structural capital – what remains behind when people leave the premises, that is systems, policies, processes, tools or intellectual property that people create, but which then becomes the collective property of the system Customer capital – the system of relationships that an organization has with its clients irrespective of the people who work there or the structural capital that is in place.
Sveiby (1997)	defines IC as an intangible asset created as the result of human action and composed of three elements: Employee competence - forms the basis for the dynamic process of organizational performance – capacity to act in a variety of situations to create both tangible and intangible assets.; Internal structure - and external structure. His definition of Sveiby's (1997) concept of internal structure seems to combine elements of Brooking (1996) intellectual property and infrastructure assets. He includes patents, concepts, models, computer systems and administrative processes. External structure - mixes other elements of Brooking' intellectual property assets with her concept of market assets to include brand names, trademarks, reputation and image.
Stewart (1997)	the sum of everything the people of the company know, which gives a competitive advantage in the market.

Table 2: Definitions of Knowledge Management (KM)

Author	Definition
Wiig, (1997)	KM is the systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize an enterprise's knowledge-related effectiveness and returns from its knowledge assets.
Hibbard (1997)	KM is the process of capturing a company's collective expertise wherever it resides - in databases, on paper, or in people's heads - and distributing it to wherever it can help produce the biggest payoff.
Petrash (1996)	KM is getting the right knowledge to the right people at the right time so they can make the best decision.
Macintosh (1996)	KM involves the identification and analysis of available and required knowledge, and the subsequent planning and control of actions to develop knowledge assets so as to fulfill organization objectives.
O'Dell (1996)	KM applies systematic approaches to find, understand, and use knowledge to create value.
Van der Spek and Spijkervet (1997)	KM is the explicit control and management of knowledge within an organization aimed at achieving the company's objectives.
Beckman (1997)	KM is the formalization of and access to experience, knowledge, and expertise that create new capabilities, enable superior performance, encourage innovation, and enhance customer value.
Bassi, (1997)	KM refers to the purposive and systematic identification, capture, organization and dissemination of tacit and explicit knowledge within an organization to improve organizational performance.

Torraco (2000)	Torraco (2000) specifies four units in his theory of knowledge management: creating a culture of KM uses Schein's (1990) definition of culture as a systematic phenomenon rooted in the organization's basic assumptions, beliefs and values that influences the essential processes used for organizational adaptation, growth and renewal and refers to the trust necessary for knowledge creation, sharing and use; accessibility of knowledge represents the degree to which knowledge is available to be shared throughout the system and has three dimensions, (a) the source of knowledge, (b) the half-life of knowledge, and (c) the exposure of knowledge; codifying knowledge means classifying knowledge along four dimensions (a) scope of knowledge, (b) type of knowledge, (c) level of knowledge, and (d) specificity of knowledge to determine its usefulness to the organization; and methods and systems of knowledge management are the strategies and techniques based on the following three dimensions: (a) the depth of analysis, (b) the time constraints on managing knowledge, and (c) the degree of structure in the methods and systems used to identify the knowledge and make it explicit and available to others.

Table 3: Definitions of Organizational Learning

Author	Definition
Fiol and Lyles (1985)	Organizational learning refers to the process of developing insights, knowledge and associations between past actions, the effectiveness of those actions and future actions. Hence learning is a change in the state of knowledge within the organization.
Huber (1991)	An entity learns if, through processing information, the range of its potential behaviors is changed, any of its units acquires knowledge that it recognizes as potentially useful to the organization, this knowledge is subject to more and varied interpretations and when more organizational units develop uniform comprehension of the various interpretations.
Dixon (1993)	Organizational learning is the process by which knowledge about action outcome relationships between the organization and the environment is developed. Organizational learning holds considerable promise for improving organizational effectiveness.
Barnett (1994)	Organizational learning is an experience-based process through which knowledge about action outcome relationships develops, is encoded in routines, is embedded in organization memory, and changes collective behavior.
Nevis, Dibella and Gould (1995)	Define organizational learning as the capacity within an organization to maintain or improve performance based on experience. OL is a systems-level phenomenon because it stays within the organization even if people change.
Miller (1996)	Organizational learning means the acquisition of new knowledge by actors who are able and willing to apply that knowledge in making decisions or influencing others in the organization.
Crossan, Lane and White (1999)	Organizational learning can be conceived of as a principal means of achieving strategic renewal, where strategic renewal requires that organizations explore and learn new ways while exploiting what they have already learned.
Argyris and Schon (1996)	Organizational learning occurs when individuals within an organization experience a problematic situation and inquire into it on the organization's behalf. They experience a surprising mismatch between expected and actual results of action and respond to that mismatch through a series of thought and action that leads them to modify their images of the organization or their understandings of organizational phenomena and to restructure their activities so as to bring outcomes and expectations into line, thereby changing organizational theory-in-use. In order to become organizational, the learning that results from organizational inquiry must become embedded in the images of the organization held in its' members minds and or in the epistemological artifacts embedded in the organizational environment.

Work and Family Conflict: A Review of the Theory and Literature

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The purpose of this review is to explore the literature related to work and family conflict and its possible implications to HRD theory and practice. It defines work-family conflict and discusses its relevance to HRD practitioners and researchers. It presents four existing theoretical frameworks and reviews the literature related to antecedents/determinants and possible outcomes of work-family conflict. Finally, it provides recommendations and contributions to HRD professionals.

Keywords: Work-family, Conflict, Work-nonwork

McLagan (1989) defined human resource development (HRD) as the "integrated use of training and development, organization development, and career development to improve individual, group, and organization effectiveness" (p. 7). Interventions in these three HRD areas are sometimes focused directly at improving individual effectiveness, but, if successful, the performance of a group or the organization can also be directly or indirectly improved. In addition, interventions focused primarily at improving organizational effectiveness can and should, in most situations, spill over into increased group or individual effectiveness. One broad area that appears to relate to all employees at some level and also exemplifies this possible spillover is that of the work and family relationship. At the foundation of this relationship is the conflict that may occur between work and family domains. Developing a better understanding of work-family conflict (WFC) is important to employees and organizations for a number of reasons. One simple reason is because conflict is a source of stress and, therefore, is associated with numerous negative consequences, both in the workplace and in the home (Hammer, Allen, & Grigsby, 1997).

During the past two decades, research in WFC has expanded beyond the family and psychology fields to business, management, and human resources. As more employees are juggling work and family demands, it continues to be important for researchers to study WFC consequences and the implications they may have on the workplace and in the home (Grandey & Cropanzano, 1999). Frone, Yardley, and Martel (1997) stated that understanding the work-family interface is a "pivotal concern of both work and family researchers" (p. 145). Because of their current and future human capital and intellectual capital potential, employees play an essential role in the success of any organization. How to assist employees in contributing their best knowledge and ability has been an active HRD research agenda for many years. However, improving employee performance by designing interventions to assist in reducing their WFC levels is a new domain for HRD practitioners and researchers.

Purpose, Research Questions, Design and Data Collection

The purpose of this review is to explore the literature related to work and family conflict and its possible implications to HRD theory and practice. The following questions were investigated: 1) What are the existing WFC theoretical frameworks? 2) What are antecedents/determinants and possible outcomes of WFC? 3) What does the literature recommend? and 4) How does this information contribute to new knowledge in HRD? This review is a content analysis of scholarly literature located in various business, psychology, and family databases. Among the hundreds of articles located, the thirty-three that appeared to have the most applicable theoretical frameworks and HRD implications were subjectively chosen.

Definitions and Relevance

WFC has been defined as "a form of interrole conflict in which the role pressures from the work and family domains are mutually incompatible in some respect" (Greenhaus & Beutell, 1985, p. 77). Recent research has divided WFC into two types of conflict. Aryee, Luk, Leung, and Lo, (1999) explained that WFC stems from the interference of events in the work role with family role performance, while family-work conflict (FWC) stems from the interference of events in the family role with work role performance. Because of the changes in employee demographic

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characteristics (e.g., increasing prevalence of dual-earner couples, influx of women into the workforce, nontraditional family arrangements) (Edwards & Rothbard, 2000), societal attitudes about work and family, and even in the changes that are occurring in the structure and processes for accomplishing work--balancing the demands of work and family roles has become a primary daily task for many employed adults (Williams & Alliger, 1994). As the demands of roles increase, it is unavoidable that one role will either interrupt or intrude in some way into the activities of the other role. Williams and Alliger (1994) stated that, "for many parents, work and family goals must compete for limited psychological, physical, and temporal resources" (p. 841). There is little doubt that workers today are confronting new and unique challenges in meeting the required demands with the resources available.

Conflict is a normal part of life. Experiencing conflict or strain between various roles is a typical result of being subject to the demands of multiple roles (Edwards & Rothbard, 2000). In fact, having multiple roles has actually been linked with certain positive outcomes (e.g., self-esteem, life satisfaction, fulfillment of goals, pride). Understanding the positive and negative linkages between work conflicts, family conflicts, and the interface, is not only important for HRD, but also for organizations, families, and society.

Theoretical Framework

Grandey and Cropanzano (1999) purported that work-family researchers have not based their predictions on a strong conceptual framework and that often theories are not even mentioned in the literature. To date, there are few theories that make a direct connection between work, family, and conflict. The theories that do, appear to be primarily based in an applied psychology theoretical context. These theories and models include role conflict theory, sensitization theory, spillover theory, and conservation of resources.

Role Conflict Theory. Role conflict theory states that experiencing ambiguity or conflict within a role will result in an undesirable state. Because of conflicting demands among roles (e.g., time, lack of energy, incompatible behaviors), multiple roles lead to personal conflict as it becomes more difficult to perform each role successfully (Grandey & Cropanzano, 1999). According to Greenhaus and Beutell (1985), there are three forms of work-family conflict: time-based conflict, strain-based conflict, and behavior-based conflict. Time-based conflict is exhibited when the time demand by one role is seen as an interference with participation in the other role. Strain-based conflict emerges when the strain experienced in one role intrudes into and interferes with another role. Behavior-based conflict is believed to occur when certain behaviors are inappropriately transferred from one role to another (Netemeyer, Boles, & McMurrian, 1996). In addition, Aryee et al. (1999) explained that, to understand WFC, both directions (i.e., work to family, family to work) must be considered. Carlson, Kacmar, and Williams (2000, p. 251) presented a chart of these forms and directions to create the six dimensions of work-family conflict (see Table 1).

Table 1. Dimensions of work-family conflict.

		Work Interference with Family	Family Interference with Work
Forms of Work-Family Conflict	Time	Time Based Work Interference with Family	Time Based Family Interference with Work
	Strain	Strain Based Work Interference with Family	Strain Based Family Interference with Work
	Behavior	Behavioral Based Work Interference with Family	Behavioral Based Work Interference with Work

Sensitization Theory. Foley and Powell (1997) reported on Pleck's work that suggests that men's self-esteem and identity have traditionally been connected to their performance of the work role, while women's self-concept has been associated with their performance of the spouse and parenting roles. It appears that some of the gender research in work-family conflict draws upon elements of this theory, whether it is formally acknowledged or not (e.g., Aryee et al., 1999; Frone, Russell, & Barnes, 1996; Kim, 1998).

Spillover Theory. Spillover theory is used to explain how work influences family life. Positive spillover would be exhibited when the satisfaction, energy, happiness, and stimulation an individual has at work would cross over into positive feelings and energy at home. Negative spillover from work to family is demonstrated when the problems, conflicts, or energy at work has strained and preoccupied an individual, making it difficult to participate in family life effectively and positively (Foley & Powell, 1997). This theory can also be used when considering the effects of family spillover on work.

Conservation of Resources (COR). The COR model encompasses several stress theories. According to Grandey and Cropanzano (1999), the model proposes that "individuals seek to acquire and maintain resources. Stress is a reaction to an environment in which there is the threat of a loss of resources, an actual loss in resource, or lack of an expected gain in resources" (p. 352). Resources include objects, conditions (e.g., married status, tenure), personal characteristics (i.e., resources that buffer one against stress), and energies (e.g., time, money, knowledge). This model proposes that "interrole conflict leads to stress because resources are lost in the process of juggling both work and family roles" (p. 352). This can lead to a negative state of being, which may include depression, dissatisfaction, anxiety, or physiological tension.

Literature Review

The experience of interrole conflict has been shown to have negative implications for well-being (Aryee et al., 1999). Regardless of the cultural context, it appears that parents are more willing to allow work responsibilities to interfere with family responsibilities than to let family interfere with work. Conflict between work and family often manifests itself in an incompatible schedule, excessive work time demands, and fatigue and irritability caused when an individual attempts to fulfill roles related to work and family (Eagle, Miles, & Icenogle, 1997). If a person is frequently struggling to meet the demands at work because of interference from home, reduced quality of work life is reported, and, if a person is struggling to meet the demands at home because of work interference, reduced quality of home life is reported.

WFC is more prevalent than FWC among both sexes in the United States and Finland (Eagle et al., 1997; Kinnumen & Mauno, 1998). Yang, Chen, Choi, & Zou (2000) conducted a study that compared WFC between U. S. Americans and Chinese and found that, even though employees in both countries reported WFC, U. S. American employees experienced greater family demand with a correspondingly greater impact on WFC. They reported that the statistical effect of FWC on stress has been shown to be greater than WFC, meaning that family demand is a major source of stress. Kinnumen and Mauno (1998) found that WFC had negative consequences on work well-being and FWC had negative consequences on family well-being. In this sample, FWC had negative effects in the home but not in the workplace, while WFC had negative consequences in both domains.

Antecedents and Determinants of Work-Family Conflict

Much research has been conducted attempting to identify the antecedents or determinants of WFC and FWC and to analyze the possible relationships involved. By the identification of these antecedents, it is hoped that interventions can be designed and implemented to assist individuals in preventing or managing WFC more effectively, thus decreasing the negative, and sometimes detrimental, outcomes for the individual, family, and organization.

One of the most common antecedents of WFC is that of multiple-role conflict. The more roles or positions a person acquires and is expected to engage in, the more complex it becomes to fulfill the responsibilities of each role (Aaron-Corbin, 1999). Role demands may "originate from expectations expressed by work and family role senders, as well as from values held by the person regarding his or her own work and family role behavior" (Edwards & Rothbard, 2000, p. 182). It is not simply the number of roles that is most critical in WFC, but how one perceives each role and the interactions between them. Carlson (1999) researched situational determinants (i.e., role conflict, role ambiguity, role overload), dispositional determinants (i.e., Type A, negative affectivity), and various demographic variables on the three forms of WFC described earlier (i.e., time-, strain-, behavior-based). She found that negative affectivity and the number of children in a family were both significant determinants of all three forms of WFC. The relationship between work role conflict and strain-based conflict was significant, and work role conflict, family role conflict, and Type A personality were significantly related to behavior-based conflict. Interestingly however, the significant relationship between WFC and Type A personality was negative, suggesting that Type A individuals in this study may be compartmentalizing their conflict into the separate domains. She also noted that, overall, the greater the role conflict, the higher the level of reported WFC. Eagle et al. (1997) also found that, as the number of children in a family increased, so did the level of FWC.

Numerous studies have been conducted in the United States researching gender as a possible determinant in WFC/FWC. Maupin (1993) examined family and career orientation differences between men and women accounting students in the United States. Even though there is a movement toward gender equality, it was concluded that there were still numerous differences and potential conflict between genders in combining work and family. In studying a sample at the Department of Social Services in New York state, Kim (1998) observed marked gender differences in terms of work-family. It was reported that WFC was higher in the women sampled, which supports the sensitization theory. Eagle et al. (1997) found, however, that there were no gender differences with regard to the permeability of work and family boundaries in their sample, yet the Hammer et al. (1997) study showed significant gender differences in the antecedent discussed earlier. In this study men reported lower WFC, higher career priority, and higher perceived work schedule flexibility than women. These are just a few of the many reported studies related to gender and WFC in the U. S. Even though the research findings vary, it appears that many U. S. women continue to perceive greater levels of WFC/FWC than do men.

WFC gender research can also be found for other countries. Kinnumen and Mauno (1998) studied employees in Finland and found that there were no gender differences in the overall levels of conflict. Results concluded, however, that WFC had negative consequences on work well-being, FWC had negative consequences on family well-being, and, as the educational level of the male increased, so did the level of WFC. Aryee and Luk (1996) studied WFC in Hong Kong and found that there were no significant gender differences related to overall career satisfaction and more specifically to certain determinants (i.e., child-care arrangements, supervisor support, skill utilization, and organization-based self-esteem). There are many variables (e.g., smaller family size, more domestic help) that can be identified to explain the difference between these studies and the U. S. studies described. The purpose of this limited gender review, however, is just to note a few international differences.

Other determinants of WFC/FWC include the level of childcare arrangement satisfaction, job insecurity, work involvement, perceived flexibility, partners' WFC, perceived control and goal progress. Consistent with the role conflict theory, the lack of satisfaction with childcare arrangements for young children was shown to increase significantly a woman's FWC (e.g., Aryee & Luk, 1996). It was found that, when a women was satisfied with these arrangements, she experienced better balance between parental demands and satisfaction in life. Kinnumen & Mauno (1998) investigated the effect that job insecurity had on FWC in a Finnish population. Results suggested that this relationship is significant for both sexes. Hammer et al. (1997) studied personal and partners' work and family involvement, career salience, perceived flexibility of work schedule, and partners' WFC. The researchers reported a significant relationship between these variables and the individuals' WFC. In addition, Williams and Alliger (1994) found that personal control and perceived goal progress may be important regulators of daily mood which can affect WFC. They reported that "juggling work and family roles throughout the day is related to both concurrent mood and reported end-of-day work-family conflict" (p. 859). These results generally support the spillover theory. The researchers concluded that spillover of unpleasant moods occurred both from work to family and from family to work, while positive mood spillover were weak.

Other antecedents of WFC/FWC relate to social support (e.g., supervisor, co-worker, family, spouse) and organizational culture. Aryee and Luk (1996) found that supervisor support of work-family issues influenced career satisfaction in both genders. Boles, Johnston, and Hair (1997) reported that low social support from co-workers lead to dissatisfaction. Adams, King, and King (1996) found that higher levels of work interfering with family predicted lower levels of family emotional and instrumental support and that higher levels of this support were associated with lower levels of family interfering with work. Hammer et al. (1997) observed both in females' and males' WFC that a partner's WFC accounted for a significant amount of variance. Thompson, Beauvais, and Lyness (1999) purported that, when there is a work-family supportive organizational culture, employees are able to manage WFC more effectively, loyalty and commitment to the organization is increased, and retention is higher.

Possible Outcomes of Work-Family Conflict

There has also been much research conducted linking WFC and FWC to possible outcomes in the home and workplace. Many of these researched outcomes appear to be directly or indirectly linked to either a decrease in individual performance in the home and workplace or to the lack of potential performance improvements for the individual, group, or organization.

Kossek and Ozeki (1998) examined the relationship among work-family conflict, policies, and satisfaction and found that there was a consistent negative relationship among all forms of WFC and job-life satisfaction. Boles et al. (1997) surveyed a sample of shift work employees and found that greater work/non-work conflict was associated with dissatisfaction in work after six and eighteen months. Other studies found that WFC was significantly related to and has an important effect on job and life satisfaction (e.g., Adams et al., 1996; Yang, 1998). Thomas and Ganster (1995) reported that job satisfaction is increased and WFC is decreased when employees perceive control over work and family.

The various repercussions of turnover in the workplace is a topic of great interest and concern for practitioners and researchers. Abbott, De Cieri, and Iverson (1998) studied the cost-of-turnover implications of WFC at management levels in Australia. They found that the total costs (e.g., reparation, replacement, training) associated with the exit of high-performing women at management level was about $75,000 per employee. Even though various financial turnover costs have been reported, it appears that researchers agree that it is expensive and difficult for many employers. Abbott et al. (1998) reported that implementation of family-friendly policies (FFP), where they are lacking, can assist in reducing this turnover. Boles and Babin (1996) found that emotional exhaustion and job satisfaction were significantly related to WFC which, in turn, was related to a salesperson's propensity to leave employment.

Another growing body of research that appears to support the COR model (Grandey & Cropanzano, 1999), relates to the health and wellness outcomes of various forms of WFC. The negative health effects of stress in general have been researched for many years. A number of studies (e.g., Aryee, 1992; Greenhaus & Beutell, 1985) supported a positive relationship between perceived job stress and WFC. It has been suggested that WFC/FWC represent a potent stress that can negatively influence an employee's health (Frone, Russell, & Cooper, 1997). A substantial body of research (e.g., Aryee, 1992) provides evidence that family and work role tension can lead to psychological and physical problems of workers. Other researchers have explained that the subjective quality of an individual's work and family roles, not the actual employment and family status, are the most important elements of psychological well-being (e.g., Williams & Alliger, 1994). Results from the Frone, Russell, and Cooper (1997) four-year longitudinal study suggested that FWC is related to poor physical health, incidence of hypertension, and elevated levels of depression. They concluded that FWC may be causally antecedent to employee health outcomes. Other research studies link WFC and role conflict to emotional exhaustion (Boles & Babin, 1996) and higher alcohol consumption (Frone, Russell, & Cooper, 1993). The negative effects of WFC on organizations have been found to include high health insurance claims, lost work days, and reduced productivity which contributes to high economic costs for organizations and families (Yang, 1998). The good news is that perceptions of supportive workplace practices were found to be associated with lower levels of depression, somatic complaints, and blood cholesterol (Thomas & Ganster, 1995).

Organizational commitment is another area of research in both the work-family and HRD fields. Various commitment forms have been shown to predict work outcomes, such as tardiness, absenteeism, turnover, turnover intentions, and performance (Cohen, 1995). Cohen (1995) purported that "it is the way in which organizations react toward nonwork domains of their employees, and not the effective management of work-nonwork domains by employees, which can increase work commitment" (p. 257). In her study of three types of organizational responses to work and family challenges, Kirchmeyer (1995) found that increasing boundary flexibility through respect practices (i.e., practices that provide workers with the support and consideration to accomplish nonwork responsibilities themselves) was associated with higher organizational commitment. Cohen (1995) examined the relationship between various commitment forms and nonwork domains with a sample of nurses from two hospitals. The findings showed that "nonwork domains affect all work commitment forms examined in this study, especially organizational commitment" (p. 239) This leads to the conclusion that the way people feel toward their nonwork domains has an important effect on their work attitudes.

As is clear, there are numerous possible determinants and outcomes of WFC (see Table 2). Understanding these can assist practitioners in assessing and evaluating individuals and organizations so that appropriate WFC-reducing interventions can be designed and implemented. Much of the reviewed literature provides suggestions for these types of interventions.

Recommendations and Contributions

After reviewing ideas for possible interventions (see Table 2), some may mistakenly think that this author is recommending that all organizations implement numerous programs and initiatives to assist employees. This list, however, provides ideas of interventions that may be effective for certain organizations if a thorough assessment by an experienced practitioner deems them to be of strategic value to the organization. May, Lau, and Johnson (1999) explained that

> The effects of numerous human resource development factors on business performance have been reported in business research literature in recent years. After years of organizational restructuring and work reengineering, management recognizes that a productive workforce is increasingly important to attain sustainable competitive advantages for business organizations on a global basis. (p. 1)

Why should organizations implement WFC initiatives? The literature has shown that employees can be more productive and effective workers if WFC/FWC is managed appropriately. Many employees cannot do this without the assistance of their employers. Bond, Galinsky, and Swanberg, (1997) stated that "the quality of workers' jobs and the supportiveness of their workplaces" (i.e. flexibility in work arrangements, supervisor support, supportive workplace culture, positive coworkers relations, absence of discrimination, respect in the workplace, and equal opportunity for workers of all backgrounds) "are the most powerful predictors of productivity--job satisfaction, commitment to their employers, and retention. Job and workplace characteristics are far more important predictors than pay and benefits" (p. 1).

Table 2. Work-Family Conflict Antecedents, Outcomes, and Possible Interventions

WFC/FWC Antecedents/Determinants	Outcomes	Possible Interventions
age of children	absenteeism	active counseling
career salience	alcohol consumption	boundary flexibility
childcare arrangements	blood cholesterol levels	child care assistance (on-site, resource and referral, voucher, discounts)
coping strategies	career/job satisfaction	
educational level	depression	
employment of spouse	emotional exhaustion	compressed work week
family involvement (individual)	goal achievement	coping strategies
family involvement (spouse)	happiness	dependant care assistance plans
family support	high health insurance claims	elder care consultation & referral
gender	incidence of hypertension	employee assistance programs
job insecurity	intention to leave employment	employee WFC training
job satisfaction	job anxiety	family illness days
life satisfaction	job involvement	flextime
mood	life satisfaction	individual situation adjustments
negative affectivity	lost workdays	integration intervention
non-day shift	marital satisfaction	job design
number of children	organizational citizenship	job rotation
organizational culture	organizational commitment	job sharing arrangements
organizational nonwork support	overall performance	lateral transfer
partner's WFC	parental satisfaction	leaves of absence
perceived control	physical exhaustion	organizational culture changes
perceived goal progress	physical problems	part-time return-to-work options
perceived schedule flexibility	psychological concerns	part-time schedules
priorities	reduced productivity	resource and referral services
role ambiguity	somatic complaints	respect practices
role conflict/tension	spillover	sick childcare options
role overload	stress levels	support groups
self-esteem	tardiness	teleworking/telecommuting
spousal/partner support	turnover/retention	temporary schedule adjustments
stress level		wellness/health programs
supervisor support/relationship		work-family coordinator
tenure		work-family handouts
Type A personality		work-family management training
work ethics		
work influence		work-family seminars
work involvement (individual)		
work involvement (spouse)		

The literature has revealed numerous suggestions that may be helpful to practitioners in designing and implementing WFC/FWC interventions. First, organizations should identify the sources of work-family conflict that are most relevant to their employees and start with the domain that poses the most problems. This includes assessing the form of conflict (i.e., time-, strain-, and behavior-based), as well as the direction (i.e., WFC, FWC) so that tailored assistance strategies or career programs can be successfully designed and implemented. Careful analysis of the employee's tasks and responsibilities should also be considered when designing work-family programs or opportunities (e.g., flextime, teleworking) that may assist in reducing conflict. Assessing employee's job requirements can also help to ensure that jobs are conducive to meeting both work and family needs and requirements. Enormous hour requirements limit time with partners and children, restrict time for exercise and recreation, and discourage community and service involvement. An overall analysis of organizational culture should also be included in a thorough assessment (Thompson et al., 1999).

Second, with the increasing effort of many companies to implement work-family initiatives and programs, managers will need to become more flexible. Quality management training is important so mixed messages between the overall organization and managers are not given. Organizational leaders and managers should be trained to encourage strong social support networks among supervisors, subordinates, and coworkers.

Third, consider interventions that assist employees in reducing work-family juggling and conflict during working hours and beyond. To assist, provide training and/or mentoring for all employees on coping strategies for work-family conflict, consider assisting employees with childcare options, design interventions that encourage health and wellness, and make social and political changes which include attention to the specific needs of dual-earner couples, single parents and others.

Lastly, remember that organizational responses to nonwork domains affect employees' commitment and attitude toward an organization. The most effective response is for the organization to implement respect practices as defined previously (Kirchmeyer, 1995). In addition, programs and initiatives will not be successful in the long-term if they are not aligned strategically with the organization's goals and endorsed by the top management. Link work-family interventions with the benefits to the organization (e.g., increased retention and recruitment, reduced absenteeism, increased productivity). In addition, the use of financial forecasting should be used to link WFC/FWC interventions to the financial bottom-line.

WFC/FWC research provides HRD practitioners with a new domain to consider in assessing, designing, and implementing performance improvement interventions in the workplace. In addition, the success of other HRD efforts will be enhanced as employees and organizations are able to benefit from reduced WFC/FWC and focus more attentively on the work at hand. To impact positively the work and personal lives of employees, organizations must stop viewing work/life benefits as an accommodation and start looking at the benefits as strategic business initiatives that propel organizational culture change. The performance of people at work remains a critical factor for the success of the organization and for the well-being of its employees. Employees are the human resources, the human capital, and the intellectual capital essential for success in organizations present and future. Work and family conflict is a fact of life. There are no quick formulas for avoiding or managing it. As we look to the future, it is our responsibility as HRD professionals to consider organization development, training and development, and career development WFC interventions that have been shown possibly to lead to both short-term and long-term performance improvement at the individual, group, and organizational level. By doing this we can expand the role of HRD in organizations everywhere.

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Behind the Badge: Implications for Employee Assistance Programs in Law Enforcement

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This exploratory, qualitative research study sought to understand how stress effects the daily lives of federal and local law enforcement officers and whether or not they are willing to seek assistance. Findings indicate professionals in law enforcement are willing to acknowledge the need for employee stress reduction programs, however, considerable attention from research and human resource development assistance is needed. Law enforcement still has a long way to go.

Keywords: Employee Assistance, Law Enforcement, HRM

Our Nations' law enforcement officers gladly take an oath to risk their own lives to serve and protect society, yet paradoxically, there is a scarcity of resources dedicated to serving and protecting them. Officers are given training, firearms, and bulletproof vests to equip them to survive critical incidents (Solomon, 1995). However, until the last decade, there has been little formal training to help these same personnel survive potential emotional consequences. In order to understand what makes cops tick, you have to know as much about where they work as what they do. It is the law enforcement agencies' responsibility to look at alternative human resource programs to assist officers and their families with the stress brought on by the impact of policing in the 21st century.

Mitchell (1983, p2.) defines a critical incident "as any situation beyond the realm of a person's usual experience that overwhelms his or her sense of vulnerability and/or sense of control." In law enforcement there is the inherent likelihood for those types of issues to happen frequently, and these include: armed confrontations, traffic fatalities, in the line of duty deaths, brutal domestic incidents and child abuse cases. Most law enforcement organizations have procedures in place to deal with officer-involved shooting incidents. However, scant attention has been paid in the past to involved personnel at the scene and the families of the individual who actually pulled the trigger. Aside from the military forces during combat, law enforcement officers and emergency service personnel are in the only professions that run towards danger, not away from it.

The life behind the badge is not nearly as exciting as that which seems to exist in front of it. A life, which many envy, however, very few outside the culture of law enforcement understand. The implications and demand for research is evident not only for law enforcement and HRD practitioners but for society's protectors. Strategic human resource intervention alternatives at all levels within law enforcement should be implemented, however, additional empirical data is required on the success and relevance of stress reduction programs on cumulative stress. Rarely if ever is the person behind the badge considered to have the range of human emotion and experience as that of ordinary people, whatever their vocational calling. Society requires instead they be superhuman in terms of strength, endurance and courage; invincible in battle and resistant to temptation. The "macho" image of law enforcement was not ready to recognize that many situations, beyond using fatal force, could trigger an officer's sense of vulnerability. The officer was expected to absorb and "get used to" tragedies- they were part of the job (Everly, 1995).

Those are the attributes and values that have traditionally been reinforced in formal academy training, and informally within the organizations. Conflict may arise when law enforcement officers begin to view themselves in very much the same manner, different from the larger society and if not better, at least more resilient and less given to emotional reaction. This sense or feeling of invincibility, even when it is not well founded, serves to allow law enforcement officers to enter high risk situations without hesitation, to repeatedly face danger, and to unselfishly put themselves at risk in their efforts to save others (Everly, 1995).

Psychological trauma as noted by Janoff-Bulman in 1992 and again by Everly in 1994, represents a contradiction, or violation, to some key psychological assumption, belief, expectation, or phenomenological construction about the world (Everly, 1995). As the result of the mission of law enforcement to protect and serve society at all levels, these contradictions surface on a frequent if not daily basis.

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Cumulatively the impact of these events can cause erosion of an individuals' self-confidence if there is not an acceptable outlet for the law enforcement officer. There is a second factor in the phenomenological construction of post traumatic stress which is psychological hypersensitivity consisting of a violation or contradiction, or at least a disruption of one's sense of safety, and/or very sense of self.

Acceptable relief of the cumulative impact of stress has traditionally been found in the consumption of alcohol, telling of war stories and the masking of feelings through joking and ridicule of criminals, victims and society as a whole. Departure from this posture is viewed as weakness and may engender ostracism from the peer group and the contempt of colleagues. These colleagues are the same individually on whom one has to rely upon in life or death situations, thus the stakes are higher than in traditional organizations.

Society demands that those who pin on the badge are somehow immune to the evils of the world, as if they were inoculated against reacting in a visceral, tangible way to human frailty. The high incidence of police suicide clearly shatters that perception. Actual numbers are difficult to obtain as a direct result of the insularity of the profession. Police suicides may be misclassified routinely as either accidents or undetermined deaths. Because police officers traditionally subscribe to the myth of indestructibility, they view suicide as particularly disgraceful to the victim officer, and to the profession (Skolnick, 1997). The desire to shield victim officers, their families, and their departments from the stigma of suicide may lead investigators to overlook certain evidence intentionally during the classification process (Wagner and Brzeczek, 1983). The efforts to shield and protect one another from outside scrutiny, extends to concealing weaknesses, even perceived weaknesses, not only from the outside but from each other.

The Journey from Denial to Acceptance

People in all walks of life must find ways to cope with degrees of stress. However, in the past 25 years, researchers and criminal justice officials have identified stress factors unique to, or more pronounced among law enforcement officers. Despite the growing understanding of stress factors within the law enforcement profession and enhanced treatment for stress related problems, many officers feel law enforcement is more stressful now than ever before. This statement can be traced to several factors, including the rise in violent crime during the 1980's and early 1990's; perceived increase in negative publicity, public scrutiny, and lawsuits; fiscal uncertainty; fear to airborne and blood borne diseases, such as AIDS and tuberculosis; rising racial tensions; and the transition from reactive to problem-oriented policing (Finn, 1997).

Keeping this in mind, what has law enforcement done for the wellness of it's officers? Who is protecting the nation's protectors? Many researchers, as well as officers and family members themselves, consider law enforcement to be one of the most stressful of all occupations. No one disagrees that it is essential to continue to address the stress law enforcement officers and their families face, for the sake of their own personal well being, their productivity on the job, and improved performance of police services (National Institute of Justice, 1997).

Law enforcement administrators are beginning to look towards employee assistance programs along with peer support programs as a means to wellness for their officers dealing with stress. Why has the law enforcement profession been so slow to react to the needs of their officers? Ten years ago an employee assistance program looked a lot different from the standard programs that exists today. Employee assistance programs in the past only dealt with legal and financial assistance to employees' rather then psychological counseling. Administrators looked at employee assistance programs as an invasion of their personnel's personal privacy. Often law enforcement unions or deferred compensation packages existed to assist officers with their legal or financial needs so administrators avoided employee assistance programs. The mere fact that more and more law enforcement agencies are making employee assistance or stress programs available to their personnel indicates these services have begun to take a threshold of acceptance. Although it has taken a long time for acceptance amongst law enforcement, the increased educational level and awareness of physical and emotional reactions to stress by the younger officers have resulted in the acceptance. Today's generations of police officers are different; they used to be mainly military veterans who either hid their stress, did not know the terms or could handle things better. More college-oriented cops understand the value of social service programs to improve their careers. Another factor are many administrators are understanding of the need for psychological services and willing to devote resources to an employee assistance stress program. The biggest obstacles are the old-timers who think officers should still tough it out. The older generation is derisive toward what the new generation wants. But it still remains among younger and older officers the stigma or fear of stigma attached to psychological counseling remains strong in many agencies (National Institute of Justice, 1997). At the same time, police administrators might not accept what they perceive to be the intrusion of a mental health professional into department operations. Administrators may also believe they do not have the time or resources to make the desired changes by implementing a stress program, or they simply might not agree that changes will reduce officer stress. This is a key statement, because law enforcement managers are use to working with hard facts, and at the present time empirical data pertaining to law enforcement on the success of stress reduction through employee assistance or stress programs is limited due to confidentiality issues.

A part of a large-scale study conducted by the National Institute of Justice (NIJ) of programs devoted to reducing law enforcement officer's stress interviewed nearly 100 stress management program directors, law enforcement administrators, mental health providers, union and association officials, law enforcement officers, and their families, and civilians. The respondents agreed that the negative effects of stress on individual officers typically harm agencies as well as officers. As observed by the respondents, the cumulative effects of stress among officers in an agency can lead to: impaired officer performance and reduced productivity, reduced morale, public relations problems, labor-management friction, civil suits stemming from stress-related shortcomings in personnel performance, tardiness and absenteeism, increased turnover due to leaves of absence and early retirements because of stress-related problems and disabilities, and the added expenses of training and hiring new recruits as well as paying overtime, when the agency is left short staffed as a result of turnover (Finn, 1997).

Traumatic Events and their Consequences

Every year, hundreds of officers experience intense, traumatic events that have serious long-term consequences for them, their families, and their agency. Often times an officer might not suffer physical injury as a result of an incident, but the emotional trauma can be just as painful, if not more so. The actions taken by the agency in the ensuing weeks and months will determine in large part whether the officer copes effectively with the stress induced by this critical incident or whether its effects become debilitating (Kureczka, 1996). Stress can come into an officer's life in a much different form, which may include, shift work, paramilitary structure, unproductive management styles, lack of career development, lack of adequate training and supervision, and equipment deficiencies and shortages (National Institute of Justice, 1997).

Officers who are specially selected/trained individuals to function in emergency situations can and are affected by traumatic events outside of the "normal" events of policing. A traumatic event is an occurrence of such intensity and magnitude that it overwhelms a person's normal ability to cope. A traumatic event can involve death, serious injury, and emotions of intense fear, helplessness or horror. The bombing of the federal building in Oklahoma City on April 19, 1995, left many people (including law enforcement officers.... many who lost colleagues) stunned and wondering if any place is truly safe. Or on a more local personal view, a police officer who witnesses a car speeding down the road, lose control and flips over, later to view two of his daughters friends trapped lifeless bodies in the crumpled car.

There are many kinds of reactions to a traumatic event ranging from a moderately uncomfortable response known as general stress, cumulative stress, critical incident stress, or to a full-blown psychological disorder known as posttraumatic stress disorder (PTSD).

General stress: effects everyone all the time and waxes or wanes with the hassles of everyday life.
Cumulative stress: can also be referred to as burnout. It is a prolonged unrelieved wear and tear of demands that a person can't respond to. Overtime, unrelenting cumulative stress can result in damage to one's emotional and physical well-being.
Critical incident stress: is incident specific, you can point to the incident that caused the stress. Critical incident stress generates considerable psychological and physical discomfort for a period of two to four weeks after the incident. This type of stress is an occupational hazard for approximately 80-87% of all emergency workers including police officers at least once in their careers (Pierson, 1989).
Post-traumatic stress disorder: many people still think it is diagnosed only for war veterans and those who have been in combat or captivity; the disorder can affect anyone who has been through any kind of traumatic event. PTSD affects about 15% of emergency workers, and creates major distress and long lasting, disruptive changes in a person's life.

There are two major categories of traumatic incidents that effect law enforcement officers, they are natural disasters and/or human-made catastrophes. There is some evidence that indicates that a natural disaster may be less stressful for police officers because it is unavoidable. The distinctions between natural and human-made catastrophes are important for law enforcement officers because many of the traumatic incidents they experience are intentional, not accidental. Exposure to the many ways in which humans intend to harm each other, rape, assault, robbery, abuse can change a person's view of the world and their trust and admiration for others (Kirschman, 1997).

Addressing the Stress in Law Enforcement

Law enforcement officers favor the illusion that they are in control and not helpless. When people enter policing they expect to be in control even when they encounter violence. They have no real way to anticipate the psychological impact of losing control, or how it will feel to have a close brush with death, or take another person's life (Kirschman, 1997). Fred Rainguet, chief of the Fort Collins, Colorado Police Department, agrees that police work is more challenging than ever before. Sited in Hepler, H., Pater, R., McClellan, P., 1994, he says there are so many issues that police officers have to deal with that did not exist 10 years ago, from youth crime, gangs, domestic disputes, traffic congestion, homelessness, transients to computers with the police officer being the initial contact person.

Clearly, administrators can no longer afford to ignore the issues of traumatic stress caused by involvement in a critical incident. Such stress impairs an officer's ability to perform his/her duties and impacts on the entire agencies operations. Police agencies can be held liable in court for ignoring stress related problems or for disciplining officers who exhibit the behavioral effects of trauma from a job-related critical incident. Courts have made significant case awards to officers whose agencies did not provide them with professional assistance. Agencies through their organizations should be proactive and develop a critical incident response that addresses the likelihood of psychological injury with the same attention and concern as the likelihood of physical injury. Unfortunately, police officers typically resist seeking available assistance because they do not want to be stigmatized as weak or crazy.

Generally speaking, law enforcement officers have been slow to recognize the positive contribution that can be made by mental health professionals. Police officers often have difficulty trusting and confiding in someone outside the close circle of sworn personnel. They fear that seeking professional counseling help in dealing with a traumatic incident will mark them among their fellow officers as incapable in some way. Delivering mental health care to the law enforcement community is difficult. Police officers often resist counseling for several reasons; they have strong sense of self-sufficiency and insist they can solve their own problems. Officers generally are great skeptics of outsiders. On the other hand counselors sometimes do not understand police work, nor can they easily grasp the daily stresses faced by officers. Because of these reasons law enforcement administrators must choose mental health professionals carefully and work to ensure they provide the best service for their agency's employees. Another means of getting help for officers is for the administration to establish a peer support program (Kureczka, 1996). When law enforcement administrators establish an assistance program whether it's an employee assistance program with outside counselors or an internal peer support group, administrators must not forget about themselves.

An employee assistance program (EAP) is a proven strategy for assisting employees and their families with personal and work related problems, difficulties and concerns, which they may experience from time to time. According to the Employee Assistance Professionals Association, an EAP is a work-site based program that is intended to identify and resolve productivity problems. Problems maybe associated with employees impaired by personal concern, which may adversely affect employee job performance. These problems, difficulties and concerns can and do effect the work performance of an employee. The private lives of employees have always affected work performance to some degree. Over the last two decades, however, the ordinary personal difficulties faced by employees have become more vexing. At the same time, the traditional organization or law enforcement agency that used to provide support, such as family and community, are often less available or less helpful. As these personal problems and stress from the workplace begins to affect performance, the administrators or the agency's human resource department are challenged to address these increasingly complex situations. Additionally, community social service programs are continuing to lose much of their financial and community supports, which leave individuals with fewer options for help. Using an EAP can help restore an officer to their former level of performance, thus increasing productivity, reducing turnover, and containing agency cost. When personal problems escalate, the results are decreased energy and efficiency, leading to a substantial decline in the ability to function in the workplace. The officer who is preoccupied with their personal matters ultimately cost the agency significant dollars in lost time and diminished performance (Atkinson-Tovar, 2000). Police administrators understand all too well the cost associated with replacing officers who take early retirement or go on disability. The department not only must pay benefits to departing officers, but it also must pay to recruit, test, hire, train, and equip these officers. In smaller agencies, sudden turnover can result in serious staff shortages that require paying other officers' overtime. An employee assistance program is based on the concern for the high human and financial costs to industry and the community of these problems, which manifest themselves in such factors as: absenteeism, lateness for work, poor productivity, high staff turnover, friction between employees and accidents in the workplace.

By offering law enforcement employees and their families the opportunity to obtain professional assistance through counseling, on many occasions these problems, difficulties and concerns can be resolved before they impact upon the officer's work performance. By actively encouraging self-referral by officers and their immediate families, employee assistance programs are early intervention strategies for agencies. An employee assistance program staff can help an officer overcome stress-related problems; the department may benefit not only by retaining a valuable officer but also by inspiring the officer to be more motivated, compassionate, and loyal to the department.

Reducing stress should lead naturally to better morale, improved productivity, and, therefore, enhanced overall department efficiency. A well-publicized statement from the department's administration recognizing the stress officers' experience and expressing support measures to reduce sources of stress demonstrates management's concern about officer's well being (Finn, 1997).

No one can predict how powerful an incident will be or what effects it will have on them. It is incumbent upon police administrators to prepare their employees for such incidents by teaching them the signs and symptoms of critical incident stress and establishing a program that will help the officer during a time of need for themselves, their family and the department. An officer that responds to a terrible incident does not need to succumb to the debilitating effects of critical incident stress.

ATF Peer Support Program

An example of a stress reduction program implemented as a result of the Oklahoma bombing by the Bureau of Alcohol, Tobacco and Firearms (ATF), was a peer support program. The Bureau of Alcohol, Tobacco and Firearms is one of four law enforcement agencies under the Department of the Treasury, and is primarily responsible for the enforcement of the federal laws related to firearms, explosives and arson. Its regulatory responsibilities include the oversight of tax collection on the alcohol and tobacco and firearm industries.

In the early 1980's, societal violence continued to escalate and consequently, the role of the agency in response was enhanced. Many employees who were involved in critical incidents suffered physical, emotional and psychological stress that affected not only themselves and their ability to be successful in their job, but their colleagues, spouses, families and those with whom they interact as customers; citizens, criminals and victims of crime. Others within the agency recognized the urgent need for some form of intervention strategy. Thereafter, the concept of peer support was introduced to the agency and viewed as a type of emotional first aid whereby employees volunteered to help one another before, during and after a traumatic event. The early and continued success of the program, now institutionalized was the direct result of the fact that employees trusted one another, particularly those that had personally experienced similar situations on the job. The awareness that human beings experience a normal and predictable reaction to abnormal events was revolutionary within the ranks of the agency. The validation by psychologists that certain reactions were normal opened the door for acceptance and relief. For many it was the first opportunity to admit in a safe venue they experienced a host of problems that they were unable to publicly articulate due to the sub-culture of law enforcement organizations that reinforces toughness and again, invincibility.

Peer Support Teams (PST) are currently available within the organization to respond to critical incidents. Over the past decade the concept has expanded to include four teams in response to an internal awareness of employee needs. These include: critical incident, alcohol/substance abuse, undercover, and spousal/family teams. The critical incident team is centered around response to the primary victims of an incident, that is, those individuals most directly affected by a crisis, disaster or trauma; typically thought of as the "direct victims" of the trauma (Every and Mitchell, 1995).

The undercover team evolved from an employee suggestion related to the cumulative stress endured by an employee and their families during protracted and often dangerous undercover assignments. The family and the agent experience feelings of anxiety, fear and isolation, often not being able to respond to one another for long periods of time. A team was trained in 1997 and is deployed by the Special Operations Division (SOD), which monitors the long-term undercover operations.

The spousal/family team was developed and implemented to address the often invisible and unarticulated needs of ATF families. The concept of whole health extends to the support system of the employee, often the tertiary victims of cumulative stress encountered by the spouse in the law enforcement profession. They are affected indirectly by the trauma via later exposure to the scene of the disaster/trauma or by a later exposure to primary or secondary victims (Everly and Mitchell, 1995). The resources are available to any employee who requests them, whether the individual is a sworn law enforcement officer or serving at another level or assignment within the organizational structure.

Conclusion

Who is protecting those who are sworn to serve and protect others? Society owes a debt to those who selflessly serve in the line of duty. Furnishing our law enforcement personnel with the best equipment, resources, and training does not adequately prepare them to psychologically confront the extremes of human behavior, violence, and death on a regular basis. The acknowledgment of the need to provide this service is axiomatic, and clearly makes good business sense. An effective critical incident stress program can reduce and sometimes eliminate the debilitating effects of critical incidents and cumulative stress. It can promote positive coping behavior, create a more positive work atmosphere, and reduce the emotional isolation often experienced after critical incidents. It is the responsibility of law enforcement managers to utilize strategic human resource intervention alternatives at all levels within the organization starting in the police academy. Training must be provided reference the cumulative impact of stress on job performance and production and the acceptance of employee assistance or peer support programs to address the needs of primary, secondary, and tertiary victims. Additionally law enforcement and HRD need to collaborate in an effort to conduct further research on selected groups of officers, both federal and local, on the relevant impact of the implementation of an employee assistance or peer support program.

Primary barriers to the implementation of an effective critical incident stress management team within law enforcement organizations has been the prevailing sub-culture of the organization which reinforces resilience to perceived emotional weakness, and the traditional reluctance of management personnel to support them. Accepting help from a peer or trained counselor must be demystified, no longer viewed as a weakness, but in fact as strength to build a healthier organization. The administrative policy should legitimize critical incident stress and recognize that officers frequently confront overwhelming situations (Everly, 1995). As McMains points out that a supportive policy acknowledges that police officers are ordinary people doing an extraordinary job, not extraordinary people doing an ordinary job. There is not a valid alternative to failing to invest in the human resource of organizations, particularly those that are at most risk...and risk the most.

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Employee Expectations, Characteristics, and Perceived Goal-Attainment of Tuition Assistance Program Participants

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Organizations are increasingly providing tuition assistance programs to their employees. Most of the research has studied TAP from the perspective of its benefits to organizations. However, little is known from the employee's perspective. The results of this evaluation study showed that individuals participated in tuition assistance programs because they primarily sought to achieve personal-enrichment goals. The results also suggest an apparent discrepancy between what organizations might expect from offering a TAP benefit and the reported intents of individuals who use TAP benefits.

Keywords: Tuition Assistance, Tuition Reimbursement, Employee Development

More and more companies have come to accept the principle that organizational competitiveness depends on having employees continually develop their competence through on-going training and education programs. The new economy, with its increased reliance on technology, workplace restructuring, globalization of marketplaces, shifts in labor market demographics, and employee expectations of greater work-life benefits, has placed a burden on human resource practitioners to both increase and improve their workforce development efforts. Simply put, the modern workforce needs to be well educated and trained to perform the necessary skills to maintain a competitive advantage in the marketplace and workforce development and a commitment to lifelong learning is becoming a corporate necessity (Jacobs, & Jones, 1995; Durr, Guglielmino & Guglielmino, 1996; Guglielmino & Murdick, 1997).

Organizations have sought to address employee development needs in two basic ways: 1) provide internal organization-sponsored training and development programs and 2) promote participation in external training and education programs, many of which have been paid for through tuition assistance programs (TAPs). In terms of internal programs, the 1997 Workforce Economics report, American companies spend between $55 to $60 billion on company-provided education and training programs. The report cites a study by the Saratoga Institute that an average firm allocates 1.4 percent of its annual payroll expense on the training and education of its employees, which is lower than the 1.8 percent figure reported by ASTD (Workforce Economic, 1997).

In terms of external programs, recent surveys have shown that six of ten organizations provide their employees with some form of tuition assistance funding, totaling nearly $10 billion annually. The National Household Education Survey reported that 76 million Americans participated in one or more adult education activities during the preceding year, which was a 25 percent increase in numbers between 1991 and 1995 (Caudron, 1999; Workforce Economics, 1997). According to Darr (1998), adult learners comprise 50 percent (7.5 million) of the national college population. These numbers support the notion of adults as self-directed learners who will engage in approximately four learning activities per year (Caffarella & O'Donnell, 1987; Merriam & Caffarella, 1991; Tough, 1978). Studies of adult learning activities report that one of the most frequently cited reasons for engaging in such learning activities were job-related and most tended to focus on professional or management-level employees (Caffarella & O'Donnell, 1991; Rymell & Newsom, 1981).

Participation in employment-related learning activities should not be surprising as corporate America has taught employees that one key to their employability is ongoing education (Caudron, 1999). From the perspective of organizations, tuition assistance programs are considered to be an employee benefit that assists in recruiting (Caudron, 1999; Flynn, 1994) and retaining employees (Dolce, 1999). Additionally, TAPs have been shown to be an easy and proven method for companies to invest in their human capital with the intent on developing a more educated and knowledgeable workforce (Caudron, 1999; Workforce Economics, 1997). According to Bassi & McMurrer (1998), companies that invest more in their human

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capital are viewed as more successful and have higher profits than those that have minimal investment. In addition, the American Society for Training and Development conducted a two-year study of tuition assistance plans that indicates that companies that spent more on training were viewed more favorably by investors on Wall Street. Measures such as market-to-book ratio, a comparison of the market assessment of the total value of a company, including its intellectual capital and other intangible asset are viewed favorably by investors (Bassi & McMurrer, 1998).

According to O'Neil (1984), TAP was not used by many employees prior to changes in the 1979 Internal Revenue Tax Code that removed tuition reimbursement as income for any courses taken that were not directly related to the employee's current position. Additional barriers to participation included requirements that employees pay a percentage of the coursework, reimbursement percentage based on grade received for the course, and necessity for the employee to make the initial payment and receive their reimbursement after the grade has been reviewed by personnel in benefits (O'Neil, 1984; Wirtz, 1979).

Problem Statement

Tuition assistance programs (TAPs) are an employee benefit supported by organizations with the underlying intent of improving employee performance and increasing organizational capability. TAPs are among a growing number of self-directed workforce development efforts in organizations and expected to benefit employees as they shape their futures through enrollment in post-secondary education. However, there appears to be limited amount of research on TAPs, especially as they relate to the intents and goals of individuals who participate in such programs. As TAPs are costly to organizations, it makes sense that the available research has typically examined the effectiveness of TAP in terms of the design and policies of the program as well as how they may benefit organizations (Bassi & McMurrer, 1998; Darr, 1998; Dolce, 1999; Flynn, 1994; HR Focus, 1999; O'Neil, 1984; Wirtz, 1979; Workforce Economics, 1997).

Organizations are recognizing that their employees are important assets and that TAPs may have an impact on retaining employees within the company (Caudron, 1999). Also, employees are feeling empowered to make decisions concerning their learning choices and seen as proactive participants in their learning activities (Clardy, 2000). Therefore, determining the employees' perception and expectations of TAP has an equal measure of importance as that of why organizations may implement such programs (Jacobs & Cushine, 1999). However, beyond identifying the contents or policies of an effective program, the research has yielded little insight regarding how TAP has provided the employees their learning needs. Caudron (1999) asserts that there is an increase in "free agent learners" who take the initiative for their lifelong learning and decide on their own which topics might be best to meet present and future job and career requirements.

So if TAPs are being viewed as a critical component for ensuring that workforces are well trained and competent and little information exist as to why employees voluntarily participate in TAPs, then it seems vital to investigate why employees participate in order to design more effective TAPs. Thus, the purpose of this study is to determine the expectations, characteristics, and perceived goal-attainment that employees state for their participation in tuition assistance plans.

The following were the research questions of the study:

1. What are the expectations of employees who participate in tuition assistance programs?
2. What is the level of perceived goal-attainment for participating in tuition assistance programs?
3. What is the relationship among employees' years of education, length of tenure, and tuition assistance program participation?

Methodology

The following describes the setting and the process used to address the research questions. The study was conducted as part of an on-going evaluation of the Workforce Development Programs, supported by the state of Ohio and the Ohio Civil Service Employees Association (OCSEA) AFSCME 11. The Tuition Assistance Program (TAP) component is intended to help state bargaining unit employees pay for educational tuition to attend a range of training and educational opportunities. In addition, the state of Ohio TAP has been designed to allow the employee complete freedom of choice in course selection, allowing the employee to attend courses during work hours, without penalty, and participation is anonymous. Employees can make decisions without the need to notify management about their choices.

The following was the process used to conduct the study. The research project had three components: one, a mail response card that is sent to any employee that request reimbursement materials from the Workforce Development office; two, phone interviews of OCSEA members who have participated in the TAP programs; and three, phone interviews of state managers and union leadership who have had employees who have participated in the TAP programs. A research team from The Ohio State University was used to assure that the research project remain objective and to assure the confidentiality of responses.

The mail response cards, which were sent to OCSEA members who had requested reimbursement materials, were designed to collect a variety of information from the participants, including; demographic information and past TAP usage (reported in paper), the member's goals for participating in TAP (reported in paper), how TAP materials were requested and submitted, and the level of customer service received. At the time of the writing approximately 3,500 TAP cards had been distributed and 432 had been returned, resulting in an approximate response rate of 12.4 percent.

The phone interviews of OCSEA members who had participated in TAP during the previous fiscal year was designed to collect a variety of information from the participants, including; how they first learned about TAP, whether the information they received about the program accurately represented TAP, what was their intention for participation and their expectations of TAP, their satisfaction level with TAP policies and funding levels, and how TAP has impacted their current positions and whether their goals and expectations of TAP had been met. In an effort to assure that a variety of state agencies were represented and to assure a diversity of viewpoints, the 50 in-depth phone interviewees were randomly selected from the pool of 4,942 individuals were had participated in TAP during fiscal year that ended June 30, 2000.

Initial contact was made at each participant's place of employment and an interview appointment was scheduled based on the convenience of the participant's schedule. For each interview, the interviewer stated the purpose of the interview, and then asked each question in the same sequence for each participant. During and immediately following the interviews, hand-written notes were taken and the interviewer repeated the participants' responses to ensure accuracy. The interview data was analyzed in two ways. First, the responses were analyzed to determine the frequencies of similar responses. Second, the extended responses were content analyzed to identify patterns of information, which could be placed into categories.

Results

The data for Questions One and Two was collected via the phone interviews. The following show the descriptive statistics of the 50 participants who were interviewed, fourteen were male (28 percent) and thirty-six were female (72 percent). In terms of the participant's ages,

- 12 participants were from 20-30 years old (24 percent),
- 16 participants were from 31-40 years old (32 percent),
- 15 participants were from 41-50 years old (30 percent),
- seven participants were from 51-60 years old (14 percent).

Results for Question One. Table 1 and Table 2 present the results of expectations of the respondents from the telephone interviews.

Table 1

Participant's Intent	*Frequency*	*Percent*
Enroll in a four-year college	11	22
Enroll in a two-year college	25	50
Enroll in graduate school	3	6
Enroll in a certification program	2	4
Enroll in some other training program	1	2
Help me make career decisions	2	4
Other	6	12
Total	50	100

Table 2

Participant's Expectations	*Frequency*
Get a college degree	34
Improve my employability	13
Enhance promotion	2
Offer of financial assistance	5
Enhance job-related skills	8

Note: multiple responses permitted

The results showed that most participants have their expectations on getting a college degree, including the associate degree. Thirteen participants used the TAP to improve their employability. The results showed that a majority (78 percent) of the participants in the evaluation used the TAP to attend some form of higher education.

Results for Question Two. The following results were concluded from the fifty phone interviews. The responses showed that the participants' personal goals were mainly to obtain a degree and learn new skills. For career-related goals, most participants have not yet achieved their career goals, but are optimistic that when a degree is obtained, many of their career goals will follow. The following are representative comments related to achieving personal and career-related goals through TAP from the respondents:

Thirty-Four respondents indicated that TAP is assisting them "to obtain a degree other than to upgrade their knowledge." Six respondents reported, "I have learned more about computers." Individual responses include:

- "I understand the accounting/budget information a lot better now that I have taken managerial accounting."
- "Primarily I want to get my degree, but If I can eventually get a promotion that's great too."
- "Getting my associates degree after 20 years of trying."
- "Better able to work with clients, helping them to see their situations from another perspective."
- "Able to get job advancement because of the courses I've taken."
- "Enjoy learning and it is helping me to think about things to do after I retire."
- "Being able to go back to school is the greatest benefit."
- "The greatest benefit has been through my improved self-confidence."
- "Learning is a hobby for me."
- "Helped me to get a part-time job."
- "Allows me to stay current in my field."

Twenty-two respondents indicated that TAP has allowed them to perform or "understand my job better". Six respondents stated that their participation has had promotional implications. Ten respondents felt that their usage of TAP has had no impact whatsoever on their current position. Individual responses include:

- "Makes me better in my interactions with clients. Our program [at University of Cincinnati] uses role playing a great deal of the time, which has really helped me do my job better."
- "It has made me more knowledgeable about my position and how to do my job."
- "I am more knowledgeable about practices and procedures in accounting."
- "One of the biggest benefits has been my increased knowledge of computers and how I can use them to do my job better."
- "Hasn't really had any impact on my current job yet"
- "I've developed a better awareness of the job and know how to deal with situations better now."
- "Understand cost accounting, governmental accounting better now and that has helped me with my job."
- "I'm staying with the state because of the TAP program."
- "More confident in my writing and public speaking."
- "As I have gotten more knowledge about criminal justice, I have become a better officer."
- "I'm kind of at a stalemate right now. My current job does not require any of the skills I am learning but the jobs I will be applying for when I graduate will require them."

Twenty-two respondents reported, "It won't happen until I complete my degree." Seven respondents indicated they were able to move up to a new position and do my job better. Individual responses include:

- "Haven't tried to move up yet. What I have found is that it helps me do a better job as a part-time tutor at Columbus State."
- "Preparing me for a senior management position."
- "It will help me qualify for jobs that require a masters degree."

- "Through giving me better choices for career advancement."
- "As soon as I get my degree, I will be able to earn a lot more money."
- "It hasn't been beneficial yet, but I know that it will in the future."
- "Until I get my associates degree, I cannot move up."
- "I am one class away from my bachelors degree, then I will be able to get promotions."
- "It will have a great impact as I am taking the course that will allow me to apply for better positions."
- "Don't know if anything is applicable yet, I don't think I am far enough along for it to matter."
- "It's preparing me for tomorrow's job."
- "I will be better able to find another job."

Results for Question Three. In terms of the participants who responded to the mail questionnaire, Table 3 presents the means and standard deviations of the Years of Education and number of Years employed by the State for the participants who completed a mail response card. Table 4 presents the frequency counts for Years of Education and Table 5 presents the frequency counts for Years with State. Age and gender was not part of the mail questionnaire.

Table 3

	Years of Education	*Years Employed*
Mean	14.78	8.99
Std. Deviation	2.06	7.07

Table 4

Years of Education	*Frequency*	*Percentage*
12	82	19.0
13-14	148	34.3
15-16	134	31.0
17 and above	68	15.7
Total	432	100.0

Table 5

Years with State	*Frequency*	*Percentage*
1-3	133	30.8
4-13	194	44.9
13 and above	105	24.3
Total	432	100.0

In addition to evaluating the frequency of participation, both years with state and years of education were cross-tabulated with TAP usage to determine whether there was a relationship between an employees tenure and educational level with TAP usage. As this was an exploratory study, cross-tabulation was considered the best method to determine if a relationship may exist between the pairs of variables (e.g., years of education with TAP usage). The results of using the Somer's *d* statistic show whether the independent variable (years of education) was related to the dependent variable (TAP usage).

The results of the Somer's *d* cross-tabulation can range from a strongly positive relationship (1.00) to a strongly negative relationship (-1.00). That is, a positive Somers'*d* value indicates that as the independent variable increases (higher level of education) the dependent variable also increases (participants usage of TAP). As shown in Table 6, the results indicate that a low associative relationship exist between both years of education and years employed with state and participants usage of TAP.

Table 6. Cross-tabulation with TAP Usage

	Somer's d	*Std. Error*	*Alpha Level*
Years of Education	.182	.042	.05
Years with State	.181	.049	.05

Table 7 presents the results of the cross-tabulation of Participants Goals with both their Years of Education and Years with State.

Table 7. Cross-tabulation with Goal for Participation

Description	*Frequency*	*Education*	
Update skills for current job	153	-.039	-.032
Develop skills to prepare for a new career opportunity	263	-.035	.058
Develop skills to increase opportunity for promotion	295	.008	-.042
Develop skills to prepare for retirement	54	-.014	.128*
Personal Development	226	.012	.042
Earn a degree/certification	29	-.004	.013
Other	6	N/A	N/A

Note: Multiple responses allowed
* *Significant < .05*

Positive relationships for Years of Education were found with the following goals:

- Develop skills to increase opportunity for promotion
- Personal Development

Positive relationships for Years with State exist with the following goals:

- Develop skills to prepare for a new career opportunity
- Develop skills to prepare for retirement
- Personal development
- Earn a degree

Summary and Discussion

In summary, the results generally showed that individuals participated in tuition assistance programs because they primarily sought to achieve personal-enrichment goals. These results are consistent with previous evaluations of this tuition assistance program (Jacobs & Cushnie, 1999). Individuals rated organization-related goals, such as improving their promotability and improving their current job performance the lowest. In addition, there was a positive relationship between years of education with the desire to develop ones skills to increase their opportunity for promotion as well as for personal development. Positive relationships for years with state and develop skills to prepare for a new career opportunity and develop skills to prepare for retirement, personal development, and earn a degree. Finally, participants appear to be achieving, or at least confident that they will achieve, their own intended goals. However, there appears to be limited impact on the career-related goals since it is too early to determine the effects.

The results of the this exploratory study suggest an apparent discrepancy between what the organization might expect from offering a TAP benefit and the reported intents of individuals who use the TAP benefit to attend training and education programs. Such information needs to be understood so that the expected program goals and outcomes can be made explicit and the program design can accommodate such outcomes. Clearly, when the TAP benefit is provided without any management input, there is a greater chance for individuals to reply upon their own information to make decisions on which training and educational programs to attend.

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Beyond School-to-Work Initiatives: Does HRD Have a Role?

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This paper asks HRD professionals to consider potential relationships between career development and current federally funded educational initiatives for workforce preparation. The authors advocate the reconceptualization of the traditional contexts for HRD to include the public education sector, along with preservice and inservice teacher education in a combined effort to share expertise, learn from those who will build the future, and put into practice a holistic and systemically-based view of career development.

Keywords: School-to-Work, Teacher Education, Workforce Preparation

According to the Academy of Human Resource Development *Standards on Ethics and Integrity*, "It (the HRD profession) is focused on systematic training and development, career development, and organization development to improve processes and enhance the learning and performance of individuals, organizations, communities, and society" (1999-2000, p. 4). A reasonable inference from this statement is that HRD is a broad field and that a consensus regarding the parameters of the field will probably never be achieved. As the world changes, the boundaries of HRD tend to move about but there are core elements as noted above. Pace (2000) suggested three basic thoughts that underlie HRD: (1) HRD is a field that makes knowledge useful, (2) HRD prepares individuals for careers, and (3) development is the driving force of HRD — it helps people expand, unfold and grow.

Pace's second basic point, preparation for careers, is the focus of this essay. However, this paper extends the margins beyond the traditional contexts of HRD literature. This paper brings together matters of public schooling and teacher education, and connecting activities that must be made with business and industry. Preparation for careers is the glue that holds this together – helping youth and adults succeed in their career pursuits. Public schooling and teacher education might be viewed by some HRD scholars as tertiary contexts that are not central to the mainstream strands of HRD literature. Their point is well taken. However, Jacobs (2000) noted that perhaps it is time to examine the limits of HRD and try to better "understand HRD in the context of the broader concept of workforce development" (p.66). That is to say, we must not just look at HRD in terms of organizations and individual learners, but we should look at workforce development as a systemic societal issue.

This essay begins by identifying traditional areas of knowledge and competence of HRD professionals that might provide starting points for considering the merits of greater involvement in public schools, and in preservice and inservice teacher education. The essay continues by describing the evolution of the school-to-work initiative as an issue of federal policy. It then describes implementation of school-to-work and how key elements of school-to-work are being applied, especially as a thrust for school reform. The essay stresses the need to integrate school-to-work with teacher education and concludes with suggestions for researching connections between school-to-work and the field of HRD.

Useful Knowledges for Building Bridges

Given that successful implementation of many of the initiatives described in this paper call for reframing professional preparation and continuing professional development for teachers, Eraut's research (1994) on continuing professional education (CPE) for teachers is particularly useful. Although a comprehensive review of his work is beyond the scope of this paper, the thrust of his findings and subsequent theorizing highlight the need for increased emphasis on learning methodologies that arise out of particular situations.

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Eraut found that action learning, critical reflection through dialog on experience (reflection both in and on action), and contextually situated learning opportunities where participants coach one another through actual work problems alleviated the dismal rates of retention and application that accompany the well known update model of continuing professional education. In addition to his study of teachers, Eraut reported recent innovations in medical and legal CPE that involve learning from experience using problem-based strategies accompanied by extensive reflective dialog.

These approaches are not new to HRD professionals; a significant number of papers presented at the annual meetings of the Academy of Human Resource Development (AHRD) are devoted to research and advanced theory building regarding these professional development methods. Despite the articulation of far more effective approaches, Cervero (in Mott and Daley, 2000), cited the persistence of the classroom based informational update. Why is this the case? Although there are numerous practical problems to be addressed in the design and delivery of contextually situated, participant-centered strategies, these can be overcome. What remains somewhat of a mystery and provides a rich opportunity for discovery is how professionals construct their knowledge. Eraut, in his extensive research on developing knowledge and competence, noted the numerous challenges and obstacles to transferring knowledge across contexts due to its tacit nature. A particularly promising model for capturing and transferring tacit knowledge arises out of the knowledge management literature. Again, by drawing upon a related but tangential emerging theory base – knowledge management (KM) – some theoretical explanations can be found. One of the core issues in the development of professional expertise is the accumulation of tacit knowledge. How tacit knowledge is accumulated, how to transfer tacit knowledge from one individual to another, and how to transfer knowledge from one context to another are triple foci of current research in KM. Nanoka and Takeuchi (1995), in their four-stage model, provided a developmental framework that included social and cognitive activities specific to the needs of the context and type of knowledge transformation (i.e., tacit to tacit, tacit to explicit, explicit to explicit, and explicit to tacit). This model appears to be highly researchable because each of the stages is accompanied by various pedagogical strategies intended to accomplish a particular stage of transformation. This model is a potential source of guidance in the design and delivery of CPE that gets at the heart of the development of expertise.

Raven and Prasser (1996) expanded the work of Nonaka and Takeuchi, particularly in the area of tacit to tacit transfer, suggesting that this particular transference is potentially the most critical and the most susceptible to failure in the absence of context. Hence, knowledge transfer is likely to be the most successful and robust when it is contextually based. These models provide abundant research opportunities to examine school-to-work initiatives in progress because rubrics that include numerous ways to transfer tacit knowledge such as observation, imitation, experimentation, comparison, joint execution, and joint reflection are well developed (Krogh, Ichijo, and Nonaka, 2000).

Creating more permeable boundaries among the various knowledge strands that are grouped under the HRD umbrella is important and necessary. Scholars unfamiliar with various contexts are in the best position to ask fresh questions that often contribute to new insights. However, knowledge and theories are generated from the standpoint of particular interests, locations, and life experiences. Knowledge is never neutral, objective, and separate from the knower. Therefore, much of this paper is devoted to describing the history, contexts, issues, and intentions of the federally sponsored programs grouped under the school-to-work initiatives. The purpose is to inform, engage, and stimulate the HRD profession to seriously consider the domains of public education and teacher education as critical links within the ecology of satisfying and sustainable careers that enable people to positively influence their organizations and communities.

School-to-Work Transition: A Federal Policy Initiative

Public education that prepared youth for the workplace has historically been linked to the social stigmas of vocational education. Boys took wood shop and girls took home economics. The traditional notion of vocational education began a transformation period with the Carl D. Perkins Act of 1990 (Jacobs, 2000). No longer was vocational education viewed as merely a tracking system to serve non-college bound youth in the United States. This legislation provided a "broader frame of how best to respond to the global economy from a societal perspective, focusing on both youth and adults" (p.66).

The initial report produced by the Secretary's Commission on Achieving Necessary Skills (SCANS) awakened the public to the workforce skills crisis. The 1991 SCANS document was a strong influence on the tidal wave of educational reform initiatives that took place in the 1990s. The report identified five competencies and a three-part foundation of skills and personal qualities critical for successful job performance. The report described "workplace know-how" as the essential ingredient for a worker's success in jobs and careers. The SCANS authors claimed that a new set of skills was needed in a global economy. "A well-developed mind, a passion to learn, and the ability to put knowledge to work are the new keys to the future of our young people, the success of our businesses, and the economic well-being of the nation." (1991, p.1) The Commission urged schools, business, and industry to become partners in crafting a high-performance workforce.

Educational policy makers and practitioners have been active for several decades in planning, implementing, and evaluating educational reforms focused on preparing students for work and lifelong learning. These initiatives include efforts such as enterprise education, career education, education for employment, and extended campus, to name a few (Roth, 2000). As international competition and technology enhancements increase pressure on educational systems, the impetus for these types of strategies intensifies. Nationally, several books and government publications were produced during this time period that stressed the need for systemic educational change. The constant and unpredictable pressure of the global economy has been a steady force on these educational reform efforts (Carnevale, Gainer, & Metzer, 1988; National Center on Education and the Economy, 1990; U.S. Departments of Education and Labor, 1988; U.S. Department of Labor, 1991).

Bailey (1999) examined several years of research that pertained to economic performance and educational reform. He noted "One firm conclusion that we can draw is that we continue to need a much better understanding of the relationship between what is learned in school and what is used on the job" (p. 9). In the whitewater of today's economic environment, the need for making strong connections between schooling and the workplace has never been greater – young adults need to be prepared to contribute to a nation's well being. Innovations in curriculum and instruction must include efforts to link students to real-world experiences (Hampton and Eresh, 1996). Students must be career ready as they transition from school to work and as Collins stated, "Learning the capacities to become employable does not necessarily presuppose an uncritical acceptance of corporate values" (1998, p.108).

Applying Elements of School-To-Work

School-to-work programs, for which the federal funding ends in October 2001, vary according to the strategies that are being applied by the various states. Illinois, for example, has implemented a school-to-work program that is intended to serve all students from K-adult. At the heart of the initiative is the goal of ensuring that every Illinois student becomes a lifelong learner who is fulfilled and productive in his or her chosen career.

Materials developed by the Illinois State Board of Education list several emphases of this initiative aimed at improved academic achievement for all students. These include:

- Rigorous and relevant learning standards for all students.
- Coordinated career awareness, exploration and development for all students.
- Relevant work experiences available to all students and educators.
- Improved instructional strategies that integrate academic and applied instruction to support real-world application and hands-on learning to better meet the diverse learning styles of today's students.
- Meaningful business/education partnerships in which local community members work together to help local students succeed.

Significant progress will be made when these elements are fully integrated within educational systems and employment communities so that all learners are prepared for their chosen careers. To date, these programs have enabled publicly funded educational institutions to take bolder steps in organizing relevant programs for workplace-oriented learning.

Efforts underway in other states indicate how key elements of school-to-work are progressing. These include: building partnerships, coordinating work-based learning, conducting staff development, integrating academic and vocational education, involving community colleges, and collaborating with teacher education. Just a few examples (indicating varying degrees of success) are noted below:

Building Partnerships

Colorado has been active in forming a system of partnerships that has linked employers and public schools. As of 1998 approximately 20,000 employers and 130 school districts were involved in partnerships that included almost 90 percent of the public school students. Eslinger (1998) offered the following goals for school-to-work partnerships based on observations in Colorado: (1) local support for partnerships must be generated to continue the work after the federal funding period ends, (2) businesses, parents, educators, and community participants must be kept informed regarding new developments with the program, (3) participation of businesses is paramount to success, and (4) evaluations must be designed to determine best practices of the program.

Work-based Learning

Stasz and Brewer (1998) noted that although programs that featured work-based learning were growing in school settings, little was known about their quality as learning experiences and the costs associated with participating in them. Their case study examined two programs in the same high school that provided course credit for work based learning experiences. They found that both programs had weaknesses in establishing connections between school and work. They also observed a possible inverse relationship between the number of hours worked and school performance. They suggested that future research should examine the variety of learning environments offered though work-based learning, and the kinds of learning these environments promote.

Staff Development

Minnesota developed a specific program to connect school learning with workplace skills. The *Relevance Counts Institute* (Bottge and Osterman, 1998), helped teachers understand the skills that employees need to achieve success in the workplace. Teachers learned specific examples of how skills are used in the workplace by visiting actual work-sites and observing applications of these skills. During the interactions of teachers and workers, employers were urged to focus on their places of employment, not what they thought schools should be doing. A follow-up activity that offered more in-depth experience was *Teachers in Business*. This paired a teacher and a business partner for 80 hours during the summer. After the 80-hour internships the pairs were given opportunities to describe their experiences. Common themes identified included trust, friendship, understanding, and a renewed commitment to relevant classroom instruction.

Efforts by Community Colleges

Community Colleges are an essential part of the training and education system in the United States and they are active in facilitating the school-to-work transition of young adults. Brewer and Gray (1999) conducted a national survey and case study research to explore relationships between community college faculty and their local labor markets. They noted that a major assumption backing the arguments for school-to-work reforms has been the need to increase the connections between schools and the local labor market. However, they found that minimal effort has been expended to develop a conceptual foundation for these relationships and minimal evidence on how this linking actually takes place. Their study also found that faculty members received little assistance from their institutions to build linkages. Although administrators and faculty will agree on the value, there were few cases in which systematic strategies existed for developing and maintaining faculty linkages to labor markets.

Involvement of Teacher Education

A collaborative effort in Ohio includes the Ohio State University education deans, The Ohio Board of Regents, and the Ohio Department of Education. This coalition has outlined a future in which prospective educators learn the following teaching and learning principles, which emphasize the interdisciplinary nature of problem solving in the world of work: (Berns, et. al, 1999)

- Student learning is enhanced when teachers focus on the learner.
- Students learn more and retain it longer when they apply their knowledge and skills to meaningful contexts.
- An important role of the teacher is to help students make connections between what they are learning and how it applies to "real world" problems (including career-oriented situations). Effective teachers facilitate the students' understanding of why they should learn the content.
- Authentic (contextual) teaching is a pervasive, powerful tool in improving a learner's performance.
- People learn best when new ideas are connected to what they already know and have experienced.
- People learn best when they are actively engaged in applying and testing their knowledge using real world problems.
- Everyone can learn. The diversity of learners requires an understanding of a variety of cultures, races, aptitude levels, and interests. Prospective teachers will be prepared to teach effectively across a variety of disciplines, cultures, races, and aptitude levels.

Elements of Successful Reform Initiatives

After more than a decade of school reform efforts across the USA, some patterns of success have begun to emerge. A case in point is *The High Schools That Work* initiative of the Southern Regional Education Board (SREB) that now encompasses approximately 1,000 high schools in 22 states. This project has a substantial database that has been used for purposes of continuous improvement (Bottoms, 1999). There are lessons to be learned from projects like *High Schools That Work*. Grubb (1999), observed four particular aspects of reform that merited special attention:

Clarity of Vision. Successful reforms have established a clear vision at the onset. "The maintenance of a clear vision, and its development in institutional practices and funding patterns, is therefore central for these (or any other) reforms to work" (p.13).

Institutional support. Institutional support necessary for substantial change should not be underestimated and Grubb observed several types needed to make educational reforms successful. These include, "principals who support it, teacher pre-service and in-service programs to prepare instructors for it, assessments that are consistent with it, the stability and slack necessary for any reform to be put in place, and the funding for the additional expenses it sometimes requires" (p.14).

Curriculum materials. Grubb explained that the time needed for educational reform is typically not available. The challenge for school-to-work advocates is to figure out ways of developing and recognizing appropriate curriculum materials, while still maintaining forums that allow instructors to collaborate on the development or modification of materials.

Evaluation evidence. Educators, policy-makers, and parents will not support reforms without evidence of their success. The school-to-work initiative must generate outcome evidence that indicates how this reform compares to conventional practice.

Fullan and Hargrove (In Eisenhower National Clearinghouse report online) described the concept of interactive professionalism as a key element of school improvement. They stated that teachers must create professional learning communities, they must view themselves as leaders in these communities, and they must lobby school systems for increased learning opportunities. They listed the following requirements for interactive professionalism:

- Discretionary judgement as the heart of professionalism;
- Collaborative work cultures;
- Norms of continuous improvement where new ideas are sought inside and outside one's setting;
- Reflection in, on, and about practice in which individual and personal development is honored, along with collective development and assessment (Oct. 30, 2000, online).

Olson (1998) noted in a national study that there were attributes common to successful sites. At each site there was at least one stalwart champion who had made partnerships between the school and business and industry a priority. Someone was responsible to make the initiative succeed. Another success factor pertained to the seed money that was needed to go beyond the school's routine costs of doing business. Many of the sites had a full-time coordinator who could make things happen and solve problems on a timely basis. The programs made short and long-range goals and adapted over time as needs changed. The sites used an incremental strategy of building on their successes and assessing their benchmarks.

Involvement of Teacher Education in School-To-Work

Teacher education programs can play important roles in school-to-work efforts. However, teacher educators may resist educational reform efforts that are focused on preparing young people for the world of work. Too often, university leaders are accused of being shortsighted, and as a result, their programs are labeled as being terribly outdated and inappropriate for systemic change. But farsightedness is a learned behavior. University teachers and administrators can learn how to anticipate environmental factors that will affect their programs and courses.

Colleges and universities will have their own contextual issues regarding the school-to-work initiative. However, Bern et al, (1999, pp. 34-35) offered the following suggestions for using school-to-work as a catalyst for curriculum change:

- Integrate school-to-work programs throughout a preservice teacher education program and within specified courses, clinical opportunities, and field experiences including early experiences and student teaching.

- Provide teacher education students with experiences in relevant workplace settings representing a variety of relevant career clusters and pathways.
- Provide a vehicle for teacher education students to learn school-to-work concepts, principles, and practices from an interdisciplinary approach.
- Provide teacher education students with a variety of suggestions for motivating their future students, including showing relationships between content being learned, careers, and the workplace.
- Role model school-to-work concepts, principles, and practices within the teacher education program by building and using partnerships.

School-To-Work and Professional Development of Teachers

Teaching, like other professions, needs a way for its members to refine their skills, reflect on their practice, and keep abreast of changes that are going on within their environment. Professionals such as lawyers, doctors, accountants, etc., attend professional conferences and seek advanced credentials and degrees. Professionals in many fields typically work with other practitioners and they frequently confer with one another about new developments in the field, problems that they are encountering in practice, or the latest technological innovations. These are the kinds of growth and development opportunities that can and should be woven into the working day of the practitioner. The opportunity for practitioners to participate in high-quality professional development is a common denominator for organizations that are recognized for their high performance (Renyi, 1996).

Unfortunately, contemporary schools are not known as incubators of high quality professional development for teachers. Most teachers do not have sufficient time or opportunities to learn. Teachers know that they should be working collaboratively, yet the structure of public schooling isolates them from other adults. And for most of the school day, they are closed off from communicating with other practitioners from outside of their school building. It is an odd phenomenon that the workplaces of business and government have been undergoing transformative processes to integrate learning into work, but decision makers in public school settings cannot seem to find the time that will allow teachers to refine their skills, observe exemplary teaching, create new lessons, and work collaboratively with other practitioners. Teacher educators can play important roles as process consultants to make some of these activities take place. Hence, it is vitally important for teacher educators to become involved in the school-to-work initiative. They can serve as catalysts for building school-to-work skills into the professional development plans of practicing as well as prospective teachers.

Can teacher education have an effect on how prospective teachers might view school-to-work as an educational reform strategy? Research indicates the strong potential for it. Tatto (1998) examined the influence of teacher education on teachers' beliefs about the purposes of education, roles, and practice. One of the questions her research examined was the extent that teacher education students' views changed in the direction of their faculty's views as they participated in teacher education programs. She noted that particular types of teacher education programs seemed to influence graduates' views in desired directions. Tatto found that "across program coherence and internal program coherence seem to play an important role on the influence that teacher education has on teacher education students' beliefs" (p. 76). Teacher education can effect the beliefs of preservice students. From her study, Tatto concluded:

> What is advocated is the development of shared understandings or norms within programs and across the field of teacher education to facilitate the creation of conditions that may encourage and enable teacher education graduates to become more critical and reflective in their practice and enable their pupils to become more critical and reflective in their learning. (pp. 76-77)

Education in public schools will not be improved if teacher education programs merely produce teachers who are comfortable with the status quo. A goal of teacher education programs should be to produce teachers experienced with change "whose dissatisfaction with business-as usual will create a useful level of disequilibrium in the schools where they earn their first teaching positions" (Clarke, Dwyer, Glesne, Kostin, Leo, Meyers, and Prue, 1997, p. 365). Thus, the critical need arises to bring teacher education into the fold of the school-to-work initiative. Teacher educators must become important stakeholders who can prepare teachers to help young adults successfully make the transition from school to work. Prospective teachers can learn essential skills in the areas of school-to-work: school-based learning, work-based learning, and connecting activities.

Concluding Thoughts:
Establishing Relationships Between Human Resource Development and School-To-Work

HRD (aimed at improvement of performance) provided directly by business organizations has assumed a high level of significance within the global economy whereas publicly funded educational institutions have yet to adequately redefine their roles in regard to education for employment. In this sense the concept of education without schooling is already well developed in the workplace. As Collins observed (1998), the notion is that business-oriented learning incorporates the attitudes and know-how of today's information age. But, attitudes and know-how are contextually situated. All of these social and cognitive practices occur to greater or lesser degrees in both the workplace and school contexts. The missed opportunity to date for both teacher education and HRD seems to be joint optimization of school and work contexts for knowledge transfer. If an important goal for publicly funded education is workforce preparation, and core elements of HRD are making knowledge useful, preparing individuals for careers, and developing people (Pace, 2000), then the HRD profession has an excellent opportunity to "walk the talk." As the end of federal funding for the school-to-work initiative fast approaches, business and industry have ample opportunities to fund partnerships, research, and innovative programs that build on the cumulative knowledge and experiences described in the preceding paragraphs.

But, what will it take to stimulate the HRD profession to explore the public education domain along with preservice and inservice education for teachers as primary contexts for research and practice? Last year's AHRD conference opened with a thought provoking *Town Forum* devoted to social responsibility for HRD (Hatcher and Brooks, 2000). In their concluding remarks, Hatcher and Brooks stressed that, "Modifying theories and our world views without concurrent shifts in practice seals the fate of HRD as a second-rate discipline and most certainly obscures its role in enhancing corporate social responsibility" (p. 11). Although it is tempting to nod in agreement that it would be socially responsible to broaden the commonplace contexts for HRD practice, the actual border crossing will indicate the strength of the profession's resolve.

This paper has provided examples of the current emphasis in the United States on preparing young people for the world of work. Scholars who routinely conduct research in the area of HRD need to turn their attention to the school-to-work initiative. Research is needed that will help theorists and practitioners better understand relationships between school-to-work and topics which are central to the field of HRD. The following questions might be starting points for a healthy research agenda: How is school-to-work aligned with other concepts such as workforce preparation and/or workforce development? What is the relationship between a federally conceived concept such as school-to-work and a (frequently) private sector driven concept such as HRD? How does school-to-work, with an emphasis on career readiness, mesh with the field of HRD, which has historically emphasized career development? Hopefully, future researchers will examine these relationships and provide fresh insights regarding the school to work transition as a relevant aspect of a holistic and systemically based view in which the HRD profession sees itself as having an important role.

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The Concept of Common Sense in Workplace Learning: A Qualitative Study

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Work practices in workplace learning and development often assume that people act with reason, knowledge and commonsense in their professional lives, although little has been done to understand how people work and learn using commonsense. This study demonstrates how common sense learning should be a part of workplace learning and development along with theoretical knowledge. It demonstrates seven different variations to using commonsense in work experience and learning.

Keywords: Workplace Learning, Qualitative Research, Common Sense

A recent newspaper article entitled *Common sense makes a comeback (and it's about time)* (Kavanagh, 1999) draws our attention to the fact that workplaces are complex environments and that human behavior within them varies according to the quality of the decision making that occurs during normal work practices. This manuscript attempts to clarify the nature of common sense in workplace learning and to demonstrate how it is understood by workers in different rural and manufacturing industries.

A starting point in analyzing the literature is to consider the concept of insight and from that to develop the place of common sense in workplace knowledge. The concept of insight was defined by Lonergan (1957) as consisting of theoretical and common sense knowledge. Theoretical knowledge (Stewart 1996, p. 19) consists of "knowing things in relation to other things and in their mutual interactions." Here the chief concern is with knowing truth, i. e. knowing for the sake of knowing. Common sense knowledge was defined by Lonergan (1980, p. 111) as:

> Commonsense, then, consists of a basic nucleus of insights that enables a person to deal successfully with personal and material situations of the sort that arise in his *[sic]* ordinary living, according to the standards of the culture and the class to which he *[sic]* belongs.

This "basic nucleus of insights" has been clarified by Stewart (1996, p. 14) as consisting of a grouping of the ways of understanding that hold to do specific actions, e.g., knowing how to operate a computer or a digital video camera. In these situations, people operate in a world of immediacy by close reference to both the practical and the concrete aspects of such actions. These are aspects that are associated with situations that have arisen and been experienced in the workers' ordinary lives. Lonergan (1957, p. 173), affirms that intelligence is not the province of scientists and scholars alone, for:

> ... one meets intelligence in every walk of life. There are intelligent farmers and craftsmen, intelligent employers and workers, intelligent technicians and mechanics, intelligent doctors and lawyers, intelligent politicians and diplomats ...

Gerber (2000) notes that people of common sense have insights into problems, weigh up different courses of action, form sensible judgments, and make responsible decisions because the world of common sense often lacks order or discipline. Consequently, people have to learn for themselves using a hit-and-miss approach since "Insights are acquired not in the precise, ordered, rigorous way of scientific inquiry that leads to general or 'universal' knowledge" (Stewart 1996, p. 16).

Therefore, the conclusion is that both theoretical knowledge and common sense knowledge are each specialization of intelligence. As Stewart (1996) reminds us, in each form of knowing the conscious person experiences, understands, and judges, but the field of consciousness differs in the two cases. Common sense knowledge is knowing for the sake of doing, theoretical knowledge is knowing for the sake of knowing.

Consequently, in workplace learning people use ordinary, not technical, language to address the workplace challenge at hand, e.g., deciding how to repair a non-functioning part of an assembly line. The goal of the use of common sense in workplace learning is to achieve a practical result, e.g., learning how to fix an assembly line. Such knowledge learned from fixing the assembly line may be transferred to varying kinds of work and used to address similar challenges in their work or in their wider lives. Such knowledge is *common* because its practical results are understand and used by other workers in actual work situations. This means that common sense knowing is situated

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in particular work contexts, e.g., in an aircraft cockpit, on a football field, in dental surgery, or in a manufacturing assembly line. As Stewart (1996, p. 17) states: "Common sense provides us with its fund of facts, its information, its certainties." These forms of information vary with the work done and represent smart and practical ways to complete the work successfully.

Forguson (1989, p. 157) adds to this understanding of common sense by focusing on the concept of the *common-sense view* as " a shared network of beliefs about the world and our solution to it, which is expressed in virtually all of our thought and behavior." Cognitive abilities including: the ability to engage in meta-representation; making appearance -reality distinctions; recognizing representational diversity; and understanding representational change. Workers should be able to use these basic abilities to make judgments about how things vary, change and differ in appearance as they do their work tasks.

Therefore, the overall purpose of this study is to understand the role of common sense in learning in different workplace situations. Specifically, what elements constitute the concept of common sense, and how are those concepts put to use in helping one learn how to do his or her job.

A Study of Common Sense Knowing in Workplaces

The data for this study were initially collected as part of two separate investigations. The first investigation examined the role of HRD in small manufacturing businesses and the other one is investigating how small farm owners learn the business skills needed to run their farms. The investigations resulted in interviews with 54 (39 from the first and 15 from the latter) adult workers of considerable experience in their jobs who were employed in manufacturing in Georgia, and in a wide range of rural occupations in the southeastern United States. Each person was interviewed using a semi-structured interview guide to share his or her experience of using common sense in their workplaces. The constant-comparative analysis was conducted of the resulting transcribed data to search for qualitative differences in the group's experience of common sense in their work. Such an analysis focuses on the relationships that have emerged between the workers' experience of common sense in their various work situations. The analysis revealed seven different conceptions of the workers' experience of common sense as listed in Table 1 below. Each of these variations or conceptions provides a piece in the jigsaw of the experience of common sense in workplaces. A closer analysis of the results in each conception is conducted in the following sections.

Table 1. Concepts of workers' experiences of common sense

- A gut feeling
- An innate ability
- As knowing how
- As learning
- As using others
- As demonstrable abilities
- As personal attributes

Common Sense as a Gut Feeling

The experience of common sense as a gut feeling was expressed in several ways by the people in this study. This gut feeling or actions based on first impressions was expressed as sensing that a decision was correct or appropriate based on one's instincts or beliefs. This gut feeling about common sense is grounded in knowing that one's decision that one is right when deciding what to do and how to do it. It was seen to be related to one's intuition. It seems to be a rather quick action in terms of thinking about whether the decision and action is correct or not. The following worker made this point:

> I know I don't sit down and ponder every decision that I make, you know, whether it is the right thing or the wrong thing or, you know, in depth. I just, you know, often weigh up the situation, make a decision and I would still think that it goes back to intuition. You think that is the right decision.

Common Sense as Innate Ability

A number of people felt that there is something innate about common sense that cannot be ignored. They were not able to define this innate ability. Rather, they were able to identify its presence when it occurred in workplace activities. In fact, these people placed more emphasis on the benefits of possessing this natural ability in the workplace than on trying to clarify its components or how it developed. Ultimately, when cornered they came back to a genetic consideration as one means of explaining this ability. The following statements demonstrate what these people thought was relevant about common sense as an innate ability:

> I think that it is a great attribute to have common sense when you're gaining experience. But, again I'm not sure that you can teach common sense. Common sense is to me something that you're born with. All I know is that if you've got common sense then experience is easier to experience.
>
> Common sense is a gift, some people have common sense and some don 't. When I was working overseas I had three guys working for me. Two had PhDs and one had a Masters in microbiology and I was there with almost no qualifications at all, and I used to examine why I was the manager and they were the workers, if you like. The reason was that two of the three lacked common sense and the company must have identified that. In their own field of research they were very, very good. Once they stepped out of that environment they had no common sense.

Common Sense as Knowing How

Considerable variation was discovered in the groups' responses in their declarations that common sense does have a knowledge component that is expressed in different people's conscious decision-making or reflection on their actions, i.e., knowing that they know something (almost metacognitive by nature) in their work experiences. Such knowledge was based more on the actions and decisions that are made in their work. It was more a competence or a capacity to be able to do something in their work rather than knowing something for its own sake. This knowing was declared in the following ways:

- taking risks:

> Getting to be a successful businessperson a lot of common sense must be used. I think that a lot of our business is management. Before we make a decision, what risks could occur or could flow on from this decision? Like our pre-season ordering of combine harvesters... instigate and think of, now only just now but what will happen when these arrive and you may have to cancel an order... what would happen if these machines arrive and there is a severe drought. Put some hurdles in front of you, think before you make the decision.

- thinking through things:

> I think that common sense is such an important thing. They talk about workplace safety, and really common sense is such an important thing when it comes to workplace safety. People who have common sense are the ones that don't get into trouble, don't have problems as such. I don't know how you instruct people in common sense. I suppose that it's a matter of bringing out their confidence. It's all about teaching people to think things through before they do them.

- being safe:

> I think that a lot of safety comes into common sense. If you don't have skill you don't have the knowledge to do a job that is in front of you. If you are not familiar with your job you may not know the safe way to do it.

- avoiding making mistakes:

> Common sense saves you a fortune. If you employ people with common sense they avoid crashes with motor bikes and your plant, trucks and things before it happens and that saves you time and money.

- being able to do practical things easily and keeping things simple:

> Digging a post hole with a shovel, common sense indicates the easiest way to do it to get the shovel, get it full of earth and bring it out. People who don't have common sense attack it the only way, bringing a little dirt out on the shovel. It's much the same if you're trying to fall a tree, you look around to make sure that it's not going to fall on you. Common sense is requiring us to look at things, keep it simple and to make sure that you are not going to get injured and nobody else is going to get injured.

- knowing how the job will turn out:

> You're presuming that they have got a feeling about how the job is expected to turn out because you've got a feeling in your head that it's going to operate just like you think it is. But, it's just naturally that's the way it's going to work. And you think that someone else can perhaps think along the same lines.

- being practical, pragmatic and fair:

> I believe that common sense is about being practical, pragmatic and fair, I think. Put your emotions aside and look at what the whole decision making process is, I think you are able then to use sense that everybody ought to be able to make sense of any situation. And in so doing it becomes a common sense.

- making sensible decisions:

> I suppose finding out the situation, weighing up the facts, looking at the alternate that's in the remedies and trying not to go to the extreme but to make a sensible decision.

Common Sense As Learning

The act of learning was seen to be a valuable way in which people developed common sense in workplace learning. It is related to experience here, but with a focus on different ways in which common sense is developed through the process of learning. This process may relate to self-learning or it may relate to observing other workers attempting to learn. People in this study emphasized two forms of learning. The first type of learning was from making mistakes and learning or developing common sense as a result of the act of learning. One person stated:

> Common sense in is in my opinion basically learning from one's mistakes. Everyone is entitled to make mistakes but if you don't learn from them you then, in my opinion. are a fool, and you're not getting the essence of common sense. But, without making mistakes you will never get common sense.

The second type of learning is based on learning how to lead people. Here, the intent is to demonstrate that knowing how fast or slow to lead a group of people in a workplace is something that doesn't just occur. Some people have the capacity to make this judgment easily. They are the ones who exercise common sense in their leadership. As one person stated:

> Common sense in workplace learning is learning how to lead people. You may at times want to push them a bit faster or want them to become more motivated, but you are certainly not going to get them more motivated unless you use common sense by leading them rather than pushing them.

Common Sense as Asking Others

A further variation in people's experience of common sense in workplace learning was located in the people who felt that common sense can be demonstrated by using fellow workers in some way. This kind of behavior was evidenced in two types of behavior - observing others actions and by asking other workers.

The concept of observation to develop common sense should be a focus for people from childhood. It is something that farmers use frequently to improve their practice and decision making. It can be the observation of other farmers or it can be self-reflection of one's own practices and how they have worked or not. As the following person noted:

> You have got to observe how other people have made decisions or observe how you have made your own decisions in the past and what has not worked. It's a common thing amongst farmers to be observers. I'm learning to observe and that is a big part of your decision making.

The idea of developing common sense from asking others is grounded in the need for rural workers to receive assistance by asking their neighbors for advice based on his or her experiences. This was often the quickest way in which to make sensible decisions about a problem on the person's property. The following example about sick cattle indicates exactly what these people mean:

> That's common sense to phone up neighbors and to ask them. To my mind it was common sense to phone a neighbor of mine and I said that 3 cows have died in twelve hours of being in this pasture. What would have killed them? Do you have any ideas? He asked if there were any yellow vine in the pasture. I said that there was. He said that is what would have got them. They cannot handle yellow vine when they are empty. I said that I had better move them to another pasture. He said not to worry any more because after twelve hours you will not lose any more.

Common Sense as Demonstrable Abilities

For a considerable number of people common sense emerged as a set of demonstrable abilities that were evident in the workplace behaviors of particular people. These abilities are particularly cognitive by nature and they illustrate common sense in action. Examples of the abilities mentioned here are presented in the following section:

- Solving problems:

In workplaces common sense was seen as the smartest way to solve a problem. Such an approach not only saves time but all of the workers are happy. The example of what to do when a gate comes open in the hog parlor illustrates this point:

> Common sense is taking the decision that is going to lead to the shortest distance in solving the problem. It is a matter of going straight to the point instead of beating around the bush in terms of problem solving. For example, if you are working in the hog pens and there's a gate which has come open and the hogs get loose, I consider that the guy who goes straight to the gate and shuts it rather than calling out and attracting my attention is exercising common sense. A lot of people don't have it. A lot of people would say: "Hey, Chris, the damn gate's open." It is too late then because half of the hogs are gone!

- Making decisions based on experience:

Making decisions based on experience involves a careful process of reflection and then action. The process of reflection may involve drawing upon one's own experiences or those of other workers. It is the importance of the experience that becomes inherent in the practice of common sense in workplaces. The following statement makes this point:

> I think that you go through a thought process of common sense ... what has happened in the past. when you have done that thing before, made that type of decision before and it hasn't worked, or has worked, that must come into ... you know, that's a very important part of it.

- Working smarter:

Common sense is a key element in working smarter. It involves choosing the safest and most appropriate way to do something. For example, in attaching an implement on to a tractor the use of common sense is essential:

> Be able to work smarter, harder and common sense plays a part in that. If you are going to attach an implement onto a tractor or if you are going to weld a piece of steel on, well common sense says that there a number of ways of doing it, safe ways, and there are not so safe ways to do it. You know, there are safe ways to pick up an implement with a tractor or back a tractor in to hook it up.

- Being able to focus:

The ability to focus in workplace learning is closely related to common sense according to some workers because it allows some people to switch their brain onto the task quickly. This is seen as using common sense. As the following person states:

> One of the problems is getting people that you train to lock into using common sense. They're not bad people and they've got a brain but they are not just locking in and focusing on this. They are sometimes just not grasping the common sense angle before they make decisions.

- Thinking laterally:

Common sense and thinking in workplace learning includes the need to think laterally to address some challenges in rural activities, such as working with irrigation on farm properties:

> One of the great things on the farm is to get people to think laterally and it doesn't matter how simple the task is. I have said to the men working for me that irrigation is as hard or simple as you want to make it. You can go out there all night changing cycles or you can changes cycles at 8 o'clock at night, check them at 10 and change them again at seven in the morning. But you're going to have to think about the field. You're going to have to think about what you are trying to achieve. Use some common sense if you've got too much water, put a few cycles on so you drop the level. So you slow it down so you don't have to be there until 7 in the morning rather than being up at 3 a.m.

- Making things simple:

By making things simple, workers really mean that a person can access different methods for doing a job easily and with a minimum of fuss, especially if the key person is away and the substitute person knows quickly how to do the job well. As the person says:

> Common sense is to make things simple. To have methods that are well documented and that are easy to access so everybody can grab them really quickly if need be. Common sense is, they should know how to access methods that if I'm away they can go to a method and grab it and they can learn without somebody being there so they are not stuck if the person's away.

- Trusting one's judgment:

It is claimed that workers should base their judgments in making decisions on what they have learned about their jobs. As one person stated:

> When I say use your common sense I am saying to trust your own judgment. If you use your common sense to a person I think I would say that you should use what you have learned.

- Considering the whole picture:

The idea of thinking about the whole picture is important for it means that a person acts by considering all of the workers around him or her. Such a consideration infers that the worker will think about the effects on an action on those around him or her as a part of the problem-solving action. As this person states:

> You've got to take into account the whole picture. It's got to be done almost instantaneously as the problem arises. You think that will remedy it and what its effects are. You need to be able to decide collectively how you will react. You'll decide on a remedy to do something that you have to do.

- Looking around and realizing the correct path:

The use of instinct was seen here to be important for making prompt, correct decisions. In a flash it should be possible to weigh up the pluses and the minuses of a situation and to come to a decision which is usually correct. As one person said:

> It's partly instinct, but it is this absolute natural ability to look around and say this is just ridiculous what we are doing now. Common sense is the ability to look around, see the wide picture, and realize what's gone right and what's gone wrong. Realize when you're on the wrong path and you're making the wrong decision.

- Using one's initiative:

The ability to use one's initiative in dealing with different workplace situations is valued when thinking about common sense. Some workers have the gift of being able to practice using their initiative in different workplace settings. As one worker said:

> It's using your initiative to take on board very practical things that I have trouble with. Common sense is a gift that some people have and some don't. Quite often you will see men working and you will say to yourself: why did he do that?

Common Sense through Personal Attributes

Common sense was also seen to be exemplified through a number of personal attributes that workers exhibit in their behaviors. Such attributes reside within each worker and the extent to which they are exhibited gives an indication of the extent to which common sense is being used in the workplace. The nature of these personal attributes is highlighted in the following segments.

- Being a self-motivated person:

Being self-motivated and practical seems to go hand in hand as indicators of common sense. Although the following person did not explain how being self-motivated did indicate more capacity for using common sense, he was adamant that such self-motivated people achieved their personal goals more effectively than did theoretically minded people. The following comment is typical of the responses in this regard:

> I think that most people who are the self-motivated type of people or are practical people, to me show more strengths in common sense that the people that aren't motivated to those sorts of ways. And doing individual personal goals in a practical way rather than in a theory way. Practical people might use more common sense than the theoretical people might.

- Having confidence:

Common sense is exhibited confidently in people when they know all about the issue in the workplace. Together with experience, this know-it-all approach does produces the confidence that is required in strong common sense behavior in workplaces. This is echoed in the following comments:

> I suppose it's all involved with experience and if you do something for long enough you develop the know-all, the know-how and the experience gives you the confidence. I am not sure if confidence equals common sense.

- Being practical:

Having the capacity to be practical in one's workplace behaviors and actions stands workers in very good stead as regards common sense. The aspect of the practical person that seems to be important here is that of being a down-to-earth person in workplaces who can obtain strong feedback from colleagues in workplace activities. As the following person noted:

> I've always been fairly practical and to an extent it's weighing up what will work, what won't, going far enough to challenge people but so you don't shock them, so you do get real feedback. A whole lot of things like that and I think that's common sense, practical ... I've always been a down-to-earth type of person.

- Being street-wise:

An alternative version of being practical is to be street-wise in terms of workplace learning. The art of being street-wise is derived from one's workplace experiences whether it is with one's current employer or one's past employer. According to one person's comment:

> 1 think common sense or being street-wise comes about by probably by what we are talking about now. By learning and they're learning from past experiences, from some other employer or from their present employer.

- Having a broad vision:

The value of holding a broad vision of workplace learning is important for it allows each worker to obtain a fuller understanding of its occurrence. Gained through experience in workplace learning such a broad perspective offers a liberating aspect that allows workers to improve one's common sense:

> Common sense is the broadness of vision that I keep coming back to. It's the ability to look wider, to stand back and say: hey what are you doing? Whereas experience might give you that so I suppose you improve your common sense with experience but people can have a lot of experience and still not know too, have common sense.

- Having control over one's emotional input:

The importance of having control over one's emotions is seen as being important for common sense in workplaces. In the fragment of this aspect the issue of control refers to controlling each worker's emotional input. How this is achieved is not explained. As the person stated:

> In workplace learning I think common sense is trying to control other people's emotional input

Discussion

The results of this study indicate that just as the literature is diverse in its attempts to understand the concept of common sense, so are people in workplaces. The main benefit from the study is to demonstrate that people in workplace contexts do believe that common sense is important to them and that they experience it in at least seven different ways at work. No attempt is made to prioritize these different conceptions of common sense. However, they do reveal that common sense in workplace learning is something much more than an intuition or gut feeling or an innate ability. It is an experience that may relate to how people learn in their work, the abilities that they use in exercising common sense, and the personal attributes that are exhibited by people who demonstrate such sense. In this way common sense is described as a vital element in workplace learning.

In particular, the view that was expressed by Lonergan that common sense is the epitome of practical knowledge in workplaces seems to hold true. While workers may engage in the transfer of learning in their work they certainly are more concerned with doing the work task well and safely. They may use certain short cuts to solve problems in the workplace and they may rely on other workers for assistance in doing so, but are all of the time using this distinctive type of knowledge to make their work practices smarter and more effective. As such, common sense in workplace learning is something that contributes to workers being smart operators and successful ones as well.

If these results do anything, they suggest that all members of a work group should take common sense in workplace learning very seriously. The designated leader may not be the person who can exercise the most common sense in the completion of work tasks. However, one role for the leader is to acknowledge evidence of common sense in work practices and to promote it openly in the relevant work teams. The study reported here did focus on people in regional settings for their experiences of common sense in workplace learning. To assist in the generalization process, it would be helpful to undertake replicatory studies in metropolitan workplaces, especially in manufacturing and service industries, and in professional situations. This would enable a much fuller understanding of how workers experienced common sense in their work practices and may provide additional data on which to develop a more complete understanding of this very common, but less understood, concept of common sense.

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Job Analysis for Training: Examining the Holistic Nature of Work Requirements

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Workers must function in concert with a whole employment entity that includes social work settings, tools, problems, and people. The learning that trainers are most interested in for their students is learning that can come from a greater understanding of the individual and the context in which changes in knowledge and action will occur. This paper examines various tools used for job analysis and seeks a greater understanding of workplace learning within the job settings.

Keywords: Job Analysis, Occupational Curriculum, Social Context of Work Requirements

Industry surveys have continued to support the need for better-educated employees who not only possess the basic "Three-Rs," but also have broader workplace skills with a foundation of knowing how to learn on the job (SCANS-Secretary's Commission on Achieving Necessary Skills, 1991; Carnevale, Gainer, & Meltzer, 1990; Hirshhorn & Mokray, 1992; Feldman, 1991). However, these reports have also confirmed that a highly technology-dependent, information-based society is too dynamic to support the assumption that individuals should be the primary focus for teaching employment competencies. Rather, employment competencies exist not in individuals, but in a complex system that includes social work settings, tools, problems, and communities of people who have a common purpose. In short, employment competencies can be neither understood nor communicated for learning apart from some meaningful employment context. The individual worker must function in concert with a whole employment entity. Without the wholeness that comes from the interaction of a complex situation, the individual has little opportunity to make an effective contribution and become a competent, successful employee.

Problem Statement and Research Questions

Current training practices are geared toward instruction in and mastery of a list of technical skills, and little attention has been given to the development of higher level cognitive skills such as problem solving or learning as part of a work team. For example, research (Zhao, 1996) on the topic of recommended computer end-user skills for office workers has identified skills of a very broad scope. Frequently these recommendations include using various types of commercial software with no further attention given to either the functional aspects of the software that needs to be mastered or the types of business problems for which the software is to be used. Such popularity rankings of specific software packages may help trainers make courseware-purchasing decisions, but they provide little guidance for instruction itself.

A clear understanding of the organizational culture is critical to the success of any employee, and a critical aspect of organizational culture is organizational effectiveness. This means each employee must determine the "behaviors, attitudes, and knowledge [needed] to achieve success on the job both as an individual and as a member of an organization" (Carnevale et al., 1990, p. 353). This process of learning how to behave where, when, and with whom is often referred to as "learning the ropes." Carnevale et al. (1990) reported that organizational adaptability or "An individual's ability to adapt to an organization's particular operating culture is perhaps the single most helpful skill in the search to achieve workplace success" (p. 356). This begs the questions, Where in the training curricula is the issue of organizational adaptability addressed? and At what point in the occupational curricula can (or should) employment competencies be integrated with the demands of organizational work groups?

Current research regarding employee adaptation and socialization and organizational adaptability is beginning to establish data to support the premise that, in fact, education and training can no longer focus simply on required

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skills. Rather, education must expand its focus to include the *entire* individual, their personal history, expectations, and prior knowledge, who will enter the workforce and the *context* in which this person assumes a role. Learning is being recognized as ubiquitous in ongoing activity (Lave, 1993). Learning is also inherently social (Mercer, 1992). The learning that trainers are most interested in for their students is learning which results in performance improvements that can comes from a greater understanding of the individual and the context in which changes in knowledge and action will occur.

Purpose

This paper examines the various tools used for job analysis and to seek one that provides a greater understanding of workplace learning within the job settings. Two bodies of literature are relevant to this paper. All are concerned with understanding employment requirements and their associated educational/training implications. The first is literature which addresses how to approach job analysis, or how to describe jobs in such a way that educational requirements for current or potential employees can be determined. Within the broad literature, particular attention will be given to the approaches that have been commonly used by educators as guides for curriculum development.

The second body of literature examines with how learning occurs on the job in such a way that employees become integrated or socialized into the work community. What follows is two assumptions of the study: (1) on-the-job learning is important to job success, and (2) students need to be prepared for the types of learning experiences likely to be available once they are employed. The literature on work socialization is primarily concerned with these processes in a wide range of job settings.

Approaches to Job Analysis

Currently, two fundamentally different approaches are available to analyze job requirements in a work context so training programs can be developed to prepare current and future employees (Bailey & Merritt, 1995). One is a task-analytic approach to describing job duties, tasks, skills, and generally broad competencies. The second is a professionally oriented, more holistic approach that seeks to understand job requirements in specific work settings or social contexts. It also has the goal of identifying job competencies for employment preparation, but it is less likely than the task-analytic approach to assume that general skills and competencies can be taught separately from specific work contexts.

The following literature review will identify the job analysis approaches used to describe workforce requirements for the purpose of developing employment-related curricula. Three models of job analysis will be examined: (1) Skills Components Model, (2) Professional Model, and (3) General Components Model. This third approach differs from the first two in that it is intended to extend beyond the requirements of a single job category or occupational group. The Skill Components Model and the Professional Model differ with regard to their conceptualization of skill and the role of the worker in the development and governance of the standards system. Each of these models will be described below in the context of office workers.

Skills Components Model

The Skills Components Model can briefly be summarized as based on the following assumptions about the work setting: limited worker roles, focus on dispositions, focus on job tasks, generic or academic skills are foundation for specific tasks, higher skill means performing more tasks, and managers/supervisors have control.

Work settings supportive of the Skills Components Model can have characteristics as Tayloristic in their orientation to work and supervision. Planning and control reside in the manager, and precise instructions are provided to workers who carry out repetitive procedures under close supervision. Time-and-motion studies may have been the basis for decisions about the most efficient work practices.

Some might question whether clerical work has ever fit this model, though it is likely that clerical and other office work is highly procedure-bound. In fact, word processing centers in many businesses in the 1970s through 1980s were major exemplars of work standardization, work measurement, and productivity standards. However, because office staffs have historically been important participants in the communications channels of an organization, there is a limit to the extent to which job performance can be anticipated and pre-specified. Office staffs, such as secretaries, need to be responsive to a wide range of customer- and internal-communication needs. This means that judgment, discretion, and problem-solving skills have been important job requirements. In-depth company knowledge is needed to know how to acquire information, judge its integrity, and decide with whom it may be shared. Even so, task analysis following the Skills Components Model has been the approach followed by several projects to understand office work and the job requirements of persons in office support roles.

According to Bailey and Merritt (1995, p. 12),

> The skills components model Ψ has a tendency to generate a proliferation of occupational categories. If occupations are thought of as an accumulation of well-defined tasks, then it becomes necessary to establish different occupations or job definitions each time there is a different accumulation of tasks. ΨPerhaps the best example of the explosion of job titles is the Dictionary of Occupational Titles (DOT), which includes definitions for over twelve thousand occupations.

The following are examples of the tools for carrying out Skills Components Job Analysis: DACUM (Develop A Curriculum), V-TECS (Vocational-Technical Consortium of States), Functional Job Analysis (FJA, used to develop the DOT). Used to develop employment-related curricula and instructional material, the DACUM involves a committee orientation process that identifies working job titles, general duties/function areas, task statements for each duty areas, general knowledge/skills/attitudes along with tool/equipment/supplies/materials, future trends/concerns, and performance standards and related requirements (Norton, 1993). The process, in effect, functions as an "abbreviated version" of the widely known Functional Job Analysis (FJA) process (Wills, 1993).

The Functional Job Analysis (FJA) model was used to develop the 12,000 job descriptions in the DOT. The FJA uses a broad functional scale to place workers on a continuum in seven categories (Fine, 1988): (1) Data Functions--complexity in the use of information; (2) People Functions--level of interpersonal skills demanded; (3) Functions that involve using objects (things); (4) Worker Instructions--level of responsibility; (5) Reasoning Development--from common sense to abstract undertakings; (6) Mathematical Development--math skills; and (7) Writing Functions.

Like the DACUM procedures, the V-TECS process has been used extensively to develop vocational curricula. V-TECS produces task-based output such as duty and task lists; performance objectives for each task; standards as an observable measure of performance; and sequential task performance steps. V-TECS outcomes also include enabling competencies and related academic skills, basic essential skills taxonomy, criterion-referenced test item banks, and performance/psychomotor items (Wills, 1993).

It should be emphasized that although there appear to be some advantages to DACUM, systematic evaluations have not shown it to be superior. Indeed, no clear conclusions have been drawn in regard to the most effective job analysis methods (O'Brien, 1989, Rayner & Hermann, 1988; Wills, 1993). Researchers have voiced difficulty in the evaluation of any job analysis method " due to the difficulty of finding appropriate criteria against which effectiveness can be measuredΨ (as well as) the difficulties in defining the occupational area, and in ensuring that each technique is used with a matched representative sample" (Rayner & Hermann, 1988, p. 48).

In assessing the effectiveness of the DACUM, V-TECS, and the FJA models, Bailey and Merritt (1995) consider the most significant disadvantage to be the focus of each model on dissecting work-based activities into component parts. This is seen as reinforcement of a narrow conceptualization of workers' roles within the organization. Such a task-focused model, in turn, leads to instructional materials that are highly task specific. The consequence is that most job analysis methods, by breaking down jobs into their specific component parts, may reduce worker roles to a series of unrelated job functions. As such, this analysis and the resulting instructional materials may, in turn, fail to provide an adequately integrated description of jobs. Hanser (1996) considers such instructional materials to be counterproductive, or not likely to help students meet current employment expectations. He maintains that "one breakdown in the school-to-work transition process stems from the inability of traditional job and task analysis methods to help us identify, understand, and communicate the skills needed for success in the high performance workplace. As a consequence, new methods are needed" (Hanser, 1996, p. x).

Professional Model

One alternative is the Professional Model of job analysis. The term "professional" is used to capture the complexity of jobs in "high-performance" organizations where workers have more discretion in their jobs and more responsibility for planning and problem solving. While the importance of specific skills is still dominant, responsiveness to the application of those skills in specific work contexts demands flexibility not present in "traditional" organizations with highly supervised work. In contrast to the Skills Components Model, Bailey and Merritt (1995) describe the Professional Model as based on the following assumptions: work is knowledge base, based on ideal of service, work is situation specific, behavior is proactive and nonroutine, specific skills are foundation for more complex problem solving, and high-performance workplace requires broader worker authority.

The tools available for Professional Model of job analysis are generally more complex than those used for the Skills Components Model, since the intent is to look at jobs more broadly and to incorporate the social context of which they are a part. Some of these tools include: Position Analysis Questionnaire, Hays Associates Profile System, Critical Incidence Technique, Occupational Analysis Inventory, and O*NET (Occupational Information Network). While Bailey and Merritt (1995) do not think the resulting job descriptions have fully met the goal of being context-sensitive, the professional approach to job analysis asks that workers play a larger role in defining their work than with traditional task-analysis. Job descriptions are still oriented toward individuals and single jobs, rather than groups. The resulting skills standards using the approaches listed above can look very much like those based on the DACUM approach--a specialized occupational profile that describes workers by identifying a list of their skills as related to specific job tasks. Bailey and Merritt (1995) contend that "Most of the broader occupational analysis methodologies Ψ include the contextual situation and other relevant aspects of the worker in the data they collect; nevertheless, they fail to incorporate these broader, external, social aspects and definitions of the job into the analysis" (p. 37).

The Critical Incident Technique is among those approaches that attempt to capture a more holistic, qualitative picture of work requirements. In some large-scale job description projects, hundreds or even thousands of critical incidents are collected that illustrate effective or ineffective (successful and unsuccessful) job-related behaviors as a vehicle for determining the aims and purposes of the job. The other job analysis tools listed above, often commercially developed systems for job analysis. Because of their complexity and cost of administration, they appear not to have been used often in educational settings to establish links between employment expectations and school curriculum (Harvey, 1991).

Future employees need to be prepared for work settings that cannot be predicted with precision, and they need to be responsive to the continual demand to learn on the job--to do their jobs by learning their jobs. In fact, the dynamic nature of employment requirements is a key factor in movements to use job analysis approaches that are alternatives to the two extremes depicted above as the Skills Components or Professional Models. Formal task analysis may be more vulnerable than the more socially complex and holistic Professional Model because changing technology, organizational, and economic upheavals have all served to alter the nature of work on a recurring basis. Learning to adjust to changing organizational contexts (and to participate in planning and implementing such changes) is as important to prospective jobholders as learning occupational job tasks. The challenge is prepare students who have a deeper understanding of workforce requirements.

While the Professional Model has the promise for greater focus on the social context of work within a given organization, it is weak in generalizability. Professional job descriptions are necessarily tied to a particular firm with a history that is as important to job description as specific technical skills. An alternative has been to describe job requirements that are both more general than those resulting from use of the Professional Model and less task-oriented than those derived through use of the Skills Components Model.

General Competency Model

Several products of new job analysis approaches are identified here as part of a General Competency Model and carry the names of the SCANS skills (SCANS-Secretary's Commission on Achieving Necessary Skills, 1991), New Work Skills (Resnick & Wirt, 1996), Work Force Basics (Carnevale, et al., 1990), and Generic Skills (Stasz, McArthur, Lewis, & Ramsey, 1990). None of these approaches to job descriptions and job requirements attempts to explicitly incorporate the social context of work into the descriptions, though the developers of all three models would agree that both learning and applying job competencies necessarily requires a social context.

One of the earliest statements of workplace competencies is found in research by Levin and Rumberger (Raizen, 1989) that sought to describe "generalizable skills" that would allow an individual to become effective in almost any setting. The focus of these skills is on traits or skills possessed by the individual person and not necessarily tasks found in a particular occupation or requirements derived from specific work tasks. This is a different perspective from the Skills Components Model or Professional Model. As will be seen in the following competency lists, several cognitive competencies are consistently included: communication, reasoning, problem solving, obtaining and using information, and ability to continue learning (Raizen, 1989, p. 10). Also prominent are personal habits and dispositions of learners such as: 1. Willingness to take initiative and perform independently, 2. Ability to cooperate and work in groups, 3. Competence in planning and evaluating one's own work and the work of others, 4. Understanding how to work with persons from different backgrounds and cultures, and 5. Ability to make decisions (Raizen, 1989, p. 10). During the late 1980s, a survey of Michigan employers (Roeber, Brown, & Stemmper, 1989) gave highest priority to three groups of skills, the first of which is related to the dispositions and attitudes included from Levin and Rumberger's work: Personal Management Skills (self-control, honesty, integrity, pride in one's work, and respect for others), Academic Skills, and Teamwork Skills.

The SCANS competencies are perhaps the most widely used model for describing job competencies in use today. Its research base is rather narrow. The initial competency list was derived from the literature and advice from experts. The SCANS competencies center on these five topic areas: Resources (identified, organizes, plans and allocates resources), Interpersonal (works with others), Information (acquires and uses information), Systems (understands complex inter-relationships), and Technology (works with a variety of technologies) (SCANS, 1991, p. 12). In addition to the five competency areas, the SCANS reports identified a three-part foundation of intellectual skills and personal qualities that are part of each of the five competencies. The three parts are: basic skills, thinking skills, and personal qualities (SCAN S, 1991, p. 15).

Both the SCANS competencies and the New Standards Project (Resnick & Wirt, 1996) have sought to describe standards for the development of broad competencies that could be integrated throughout the school curriculum and presented as goals for all students, not just those preparing for employment after high school graduation. The nine competency areas defined by the New Standards Project are: (1) Collecting, Analyzing, and Organizing Information, (2) Communicating Ideas and Information, (3) Planning and Organizing Resources, (4) Working with Others and in Teams, (5) Using Mathematical Ideas and Techniques, (6) Solving Problems, (7) Using Technology, (8) Understanding and Designing Systems, and (9) Learning and Teaching on Demand (Resnick & Wirt, 1996, pp. 429-451).

As a way of comparison, the following are the "Workplace Basics: The Skills Employers Want" as defined by Carnevale, et al. (1990) with the support of the US Department of Labor and the American Society of Training and Development (ASTD): (1) Three R's, (2) Personal Management, (3) Group Effectiveness, (4) Organizational Effectiveness and Leadership, (5) Competence in Reading, Writing, and Computation, (6) Listening and Oral Communication, (7) Creative Thinking and Problem Solving, and (8) Learning to Learn.

General Competency Models have been reconfirmed as useful tools for describing work requirements and the corresponding instructional goals. Stasz, et al (1990, 1996) have refined the definitions and organization of the work-related learning outcomes called "generic skills. These are summarized below as they are described in the report of an extended research project examining both the nature of generic skills and ways that they may be taught effectively both in schools and work-based learning settings (Stasz & Kaganoff, 1997): (1) Technical Skills and Competencies, (2) Generic Workplace Skills, (3) Personal and Social Skills, and (4) Broad occupational understanding ("all aspects of the industry"). These competency areas are interrelated; no single category stands alone as a meaningful job requirement or expectation; and all are inherently ambiguous competencies and dependent on specific subject matter or work settings for fuller development. None of these competencies can be taught directly through demonstration, exhortation, or any other didactic teaching approach, since all take on different meanings depending upon the specific work context. In the workplace, the competencies and dispositions associated with success on the job are often defined by a community of practice or depend on the nature of the work, such as specific tasks assigned and the quality standards in the immediate work group.

Instructors continue to seek greater understanding about what work requires and how to teach work-related competencies in either school- or work-based learning settings. The need continues to take general statements about appropriate educational outcomes and translate these into meaningful learning experiences for students. Also there is the need for schools and employers to work more closely together to understand workplace competencies and learning requirements in the job setting.

In summary, job skills derived from task-analysis hierarchies have generally been recognized as of limited usefulness for curriculum development. Two major problems, actually, untenable assumptions, are identified with reductionistic task-analysis approaches:

1. Decomposing any competency to its smallest parts and teaching each part separately on the assumption that, if each subskill has been learned, all the subskills can be put together and the competency will have been acquired, and
2. Teaching individual competencies or skills out of context on the assumption that each will then be applied appropriately in context. (Raizen, 1989, p. 12)

In contrast, "the job skills that appear to be linked to proficiency consist of competencies that integrate specific job knowledge and skills and more general habits and ways of approaching problem situations" (Raizen, 1989, p. 12).

The following summary of Raizen's work could be considered a critique of the Skills Component Model and support for the more socially complex, contextually sensitive Professional Model of job These are Raizen's (1989) conclusions about describing work and preparing students for effective employment:

1. The usual decomposition and decontextualized teaching of skill hierarchies is seldom effective in education and training for work. In contrast, the analysis and distribution of complex tasks to allow shared performance (or its simulated counterpart) by less experienced and more experienced workers provides a highly effective learning situation.
2. People build workplace expertise through the opportunity to participate, under the tutelage and

mentorship of experts, in physical and intellectual tasks specific to a particular work setting.

3. Situated learning enables them to use the social, symbolic, technological, and material resources provided by the work context to structure problems and problem solutions.
4. Symbol manipulation and abstract thinking skills required in many technical jobs today are learned effectively through a combination of practice and explicit teaching in a meaningful context.
5. The process of progressing from novice to expert takes time as individuals achieve increasing levels of understanding--or knowledge, procedures, strategies, and social interactions relevant to their work and to the subculture of the occupations or profession. (Raizen, 1989, p. 56)

The suggestion that learners progress to potentially higher levels of understanding and competency, from novices to experts, suggests continued learning. Much of this learning necessarily occurs on the job because it cannot occur elsewhere. It is hard to separate organizational learning from the formal learning experiences that learners participate in both prior to employment and while employed. Since a key assumption of this paper is that students need to be prepared in school to take advantage of learning opportunities thereafter, socialization on the job is both an in-school concern and responsibility as well as an employment-based phenomenon. Work socialization processes will be reviewed in the next section.

Work Socialization

Attracting and maintaining productive, satisfied employees is central to any organization's long-term success. A key aspect of this road to success is the degree to which new hires are socialized not only to the work itself but also the cultural climate of the workplace. For many new employees, training programs lay the foundation for the socialization process. It stands to reason then that not only are initial training programs critical to the work itself, they are also directly related to long-term work outcomes.

Saks (1996) reported on a study which examined the relationship between amount and helpfulness of entry training and work outcomes. In reporting previous research, Saks noted that when compared with other socialization practices, training programs contribute modestly to the development of newly hired employees and contribute little to the employee becoming an effective member of the organization. Saks∋ study not only investigated the amount and helpfulness of entry training but also tested for interaction between "the *amount* and *helpfulness* of training∀ (p. 432). His study also sought to determine if anxiety moderated the relationship between training and work outcomes.

Saks (1996) found that the amount of training was positively related to the helpfulness of the training. He also found that the ∀training *amount* was positively related to job satisfaction, commitment to the organization and profession, ability to cope, and job performance, and negatively related to intention to quit the organization and profession∀ (p. 445). Small support was also found to mediate the relationship between training and work outcomes. Saks concluded "that the adjustment of newcomers is strongly related to the *amount* of training they feel they have received during socialization∀ (p. 446). It is also worth noting that it was the amount of training that was significant rather than its availability. This may translate to mean that when organizations provide new employee training opportunities, that the amount of training as it relates to the new employee∋s needs is the key element to the employees∋ perception that it has been effective.

Ashforth, Saks, and Lee (1998) reported on socialization and the adjustment of newly hired employees. Ashforth et al. (1998) used Van Maanen and Schein∋s typology of socialization tactics as the theory base to determine the role of organizational context on socialization and the adjustment of newcomers to the workplace. Van Maanen and Schein (Fisher, 1986) propose that organizations use six tactics, each with a bipolar continuum, to frame early work experiences of hew hires. These six tactics are the following: (1) collective vs. individual, (2) formal vs. informal (whether the newcomer is isolated from full members and treated as a trainee, or simply accepted as a member and trained on the job), (3) sequential vs. random (clear, specified steps which must be mastered in order, or in no particular sequence), (4) fixed vs. variable (fixed time table for progress, or variable time table based on recruit performance), (5) serial vs. disjunctive (new-comer trained predecessors or peers, or learns the role without other incumbents present), and (6) investiture vs. divestiture. The former in each of these groupings promotes a passive acceptance of status quo. The latter in each grouping encourages individual thought and questioning of the status quo. Clearly, these tactics are not organization specific, but may well be context specific.

The value of the work of Ashforth et al. (1998) is critical in today∋s workplace. Indeed, "institutionalized socialization ∋as a relatively structured program of learning∋ may help reduce the uncertainty inherent in early work experiences and smooth a newcomer∋s transition into the organization∀ (p. 904). These authors found that institutionalized socialization was most functional for large, mechanistic organizations. This is not a surprising finding as these organizations may be more inclined to support the status quo among new hires rather than to encourage independence and freethinking.

Anticipation has also been determined to have relevance in work socialization, especially for new employees. ∀Anticipating a career-appropriate job that is subsequently obtained should motivate newcomer participation in organizational socialization processes and yield positive outcomes∀ (Holton & Russell, 1997, p. 165). Holton and Russell sought to determine relationships between anticipation and socialization processes and outcomes for new employees. The participants were asked their perceptions of the following: organizational entry experiences, job entry, and organizational understanding. A strong relationship surfaced between anticipating one's job and socialization processes and outcomes. These authors also found that ∀non-anticipatory newcomers were significantly less satisfied with their jobs, committed to the organization, internally motivated to work and psychologically successful. They also reported greater post-decision dissonance and higher intent to quit∀ (p. 171). Those non-anticipatory participants were also found to have large differences in socialization process perceptions, including more difficulty in adapting, more stress, and ∀less organizational learning∀ (p. 171).

The implications of this research for work socialization are significant. First and foremost, the keystone of productive employees is an effective hiring process. Those who are hired, and who obviously then have the requisite skills, but do not appear to have a reasonably significant level of anticipation or enthusiasm for the job will not be likely to adapt appropriately to their new employment environment. Thus, any training or adaptation/orientation experiences may be significantly less effective, probably resulting in less productivity and greater turnover.

Implications for HRD

The implications of the work socialization research are significant for Human Resource Development (HRD). Using the appropriate job analysis tool or a combination of tools to gain a deeper understanding of the holistic dimensions of workplace job demands and the skills needed by employees is necessary in order for employees to be productive as individuals and as members of an organization. Examining a more social/cultural perspective would broaden the scope of what can be examined at the work site. The descriptions of challenges, obstacles, and problems can provide insights into the nature of problems and successful problem solving practices as well as areas for needed instructional or organizational support. Deeper understanding can be gained about skills important in the employment settings and also about how resources and other constraints of the work setting affect individual performance.

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Managerial Skill Requirements: Evidence from the Scottish Visitor Attraction Industry

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This paper presents the findings from an exploratory study into Scottish visitor attraction managerial skills, providing an insight into the range, diversity and perceived importance of current and future skills. The main findings highlight a focus on operation skills, but the 'soft' people skills are seen as being important in the future.

Keywords: Scottish Visitor Attractions, Managerial Skills and Competence Development, Future

At present Scottish Tourism is experiencing a growth in the development of major visitor attractions and in 1998 the Scottish Tourist Board Visitor Monitor identified 976 visitor attractions in Scotland (STB, 1998:2). A visitor attraction has been defined as:

> 'A permanently established excursion destination, a primary purpose of which is to allow public access for entertainment, interest or education, rather than being principally a retail outlet or venue for sporting, theatrical or film performances. It must be open to the public for published periods each year, and should be capable of attracting tourists or day visitors as well as local residents.' (Scottish Tourist Board, 1991:1)

Recent developments have added to the diversity and competitiveness of the visitor attractions sector of Scottish Tourism (Scottish Tourist Board, 1998) and therefore it is not surprising that the importance of having managers with appropriate skills, has been recognised as fundamental to the current and future success of Scottish Tourism. Tourism Training Scotland's Strategy (1998) identifies a priority for the next five years as providing, 'Management skills to equip the industry to be innovative in meeting the changes taking place in tourism and the broader business environment'. Although much research has been undertaken into current managerial skills and knowledge, little work has been conducted on specifically identifying skills and knowledge requirements for managers in visitor attractions either now or in the future.

This paper reports on an exploratory research study designed to address this void. The aim of the research was to examine the range and importance of current and future managerial skills in the visitor attraction sector. Although the research setting is Scotland and the findings are particularly pertinent for the management of Scottish visitor attractions, they should also be informative for managers in other established international travel destinations.

Relevant Literature and Theoretical Framework

The subject of developing management skills and competences and their potential role in contributing to organisational success have received much attention (Prahalad and Hamel 1990; Hamel, 1994). Stinchcombe (1990:63) contends that the foundation of an organisation's capabilities is the competences of its individual members. This has led to a competence-based approach being suggested as one-way forward for developing skills in managers (Schroder, 1988; Talbot, 1997). Such competence-based approaches rely heavily on the notion that a specific set of skills and knowledge, which encompass all aspects of a manager's work, can be identified.

The approach taken in the UK, has been to develop agreed classifications of what managers 'do' rather than what management 'is', as noted by skills, knowledge and understanding needed by managers. The ability of a manager to function successfully in the workplace is then measured against these competences. As Day (1988) articulates, it is related to 'the ability to put skills and knowledge into action'. This is different from the US approach, which is more concerned with identification of competencies, which differentiate superior managerial performance. (Boyatzis, 1982; Schroder, 1989). Not surprisingly given the above, much debate and confusion has arisen regarding the concept of '*competence*'. The terminology of *competence* and *competency* are often confused which has led to the statements being used simultaneously. Hirsch and Strebler (1994:83) highlight three 'recurring features' of *competence(s)* as: being seen in the context of a job or job role and the organisation in which that jobs exists; are positively associated with superior performance; and can be described in terms of specific behaviours

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which can be observed in the job. Boyatzis (1982) differentiates '*competency*' from the job-related concept of '*competence*' by defining managerial competency in relation to the attributes of an individual, which are 'causally related to effective or superior performance in a job'.

In competence-based management development approaches, typified by the UK's National Vocational Qualification (NVQ) and Management Charter Initiative (MCI) schemes, individuals are assessed as either 'competent' or 'not yet competent'. Winterton and Winterton (1999:26) however propose that a 'continuum of *degrees of competence*, with a threshold of competence where the individual meets the defined standards, but has scope for developing further skills, knowledge and understanding' is a more realistic approach to take, when considering both organisational and individual development.

The ability to exercise both technical expertise and management skills to identify and implement productivity improvements is clearly imperative to operational success. Jacobs (1989) proposes that attention needs to be paid to the development of both systems and people in the operation, i.e. the 'hard' or technical aspects of management and the 'soft' or behavioural characteristics. In support of this hypothesis, the McKinsey 7-S framework, initially developed by Peters and Waterman (1982), illustrates that organisational capability is influenced by the 'soft' elements of *style, staffing, skills, and shared values*, as well as the traditional 'hard' areas of *strategy, structure and systems* (Fifield and Gilligan, 1997).

Winterton et al. (2000) present a range of competences and competencies that will be required of successful managers in the future. Such competences which are considered to be critical include: possessing knowledge based on a technical speciality; ability to see and act beyond local boundaries; learning and innovation; managing change; flexibility; possessing a group oriented view of leadership, and transformational leadership. Competences, identified as being important are cited as facilitation skills; communication across national boundaries; self-reliance; responsibility; self-monitoring, and ability to learn from experience. Finally, some of the critical capabilities which organisations need to have in place in their managers are presented as being: shared value; trust; honesty; sustainable development; influence; instinct and judgement, and learning.

Although the above discussion centres on generic managerial competence and competencies, there has been a burgeoning interest in understanding what are the most important managerial skills and competences for managers in the tourist and hospitality industries. Much of the research, which has explored these sectors, has focused on identifying core managerial skills. For example Hay (1990) examined core managerial competences and characteristics, which are essential in a rapidly changing world, and Tas (1988) and Christou and Eaton (1997) identify the most important competences for hotel general management. In essence these surveys all identified 'Soft' or 'human relation' associated competences as being the most significant. Ladkin (1999:170) when reviewing the empirical research into hotel managers found that when researchers have concerned themselves with more applied research and looked at what managers in hotels actually do, four principal roles of entrepreneur; cost controller; marketer, and service and quality control assurance, could be identified.

Also receiving some attention in the literature has been the research that has specifically attempted to identify the importance of managers possessing a balanced range of skills and competencies (Gamble et. al., 1994; Ladkin and Riley, 1996). Guerrier and Lockwood (1989) question the validity of the traditional approach to developing hospitality managers, which has led to an operational perspective on developing skills. At the time of their study there was little evidence of any focus on 'the development of human relations skills for managers and indeed little acceptance for this sort of development' (Guerrier and Lockwood, 1989).

Swarbrooke (1995: 363) interprets the following issues to be important for the future success in managing visitor attractions: increased emphasis on quality; flatter structures and empowerment of staff; more emphasis on recruitment, development, appraisal and performance related pay; increased use of integrated computerised management information systems; increased professionalism of managers; greater emphasis on marketing, and a focus on ethical and social responsibility. This brief overview of the research into managerial competence serves to reinforce the fact that research into managerial skill requirements in tourism have been preoccupied with examining the hotel sector, and have neglected other sectors of the industry.

Research Questions

In an earlier phase of this research study (see McCracken and Watson, 2000 for further details) the views of experts at the strategic level of Scottish Tourism regarding future skills requirements of managers in visitor attractions were gathered. This information along with that uncovered in the literature briefly reviewed above was used to design a questionnaire to elicit manager's views on the importance of stated managerial skills, both now and in the future. The main objective was to address two research questions, which were:

- Which skills/competences and competencies do general managers in the top Scottish visitor attractions consider to be most important both now and in the future?

- Could differences in managers' perceptions surrounding the importance of skills/competences and competencies be explained by contextual variables associated to the attraction or the respondent?

Methodology

By using previous theories on skill requirements from other generic and specific sectors, to inform the construction of the questionnaire the authors adopted a deductive or positivist stance because attempts were made to see if the skill requirements reported elsewhere were relevant in the visitor attraction sector. Gill & Johnston (1991) argue that this position is only attainable if the 'realist' ontological stance articulated by Burrell & Morgan (1979) is adopted. Burrell and Morgan (1979: 4) summed up this position neatly by observing that: '…for the realist, the social world has an existence which is as hard and concrete as the natural world.'

The questionnaire was issued to the top-twenty attractions in Scotland based on visitor numbers, which charge admissions and also the top-twenty where admission is free (Scottish Tourist Board, 1998). Additionally nine visitor attractions were included in the population. These attractions had opened since the Scottish Tourist Board data had been complied, but were felt to be likely to feature in the top twenty paid or free attractions list in the next monitoring survey. This purposive sample was selected to enable the researchers to examine the perceived skill requirements amongst managers of the most successful attractions in terms of visitor numbers.

After piloting, the final survey instrument contained 45 skills statements divided into seven categories. Respondents were asked to rate current and future importance of the skill on a five point Likert scale. The lowest rating equated to 'no' importance, and the highest option in terms of importance was labelled as essential. The questionnaire also included seven factual biographical questions and four open-ended questions where the manager could describe general organisational as well as training and development issues in the visitor attraction. Table 1 provides a breakdown of the number of skill items within each skill category in the questionnaire.

Table 1. Skill Categories and Number of Items

Skill Category	Antecedents (From literature & interviews)	Number of items listed
Strategic General Management Skills	External awareness: networking: understanding contradictions: benchmarking: maintaining shared values: knowledge management: commercial/Ecological awareness and decision-making	9
People Management Skills	Attracting, recruiting and leading employees: motivation: training & development: teambuilding: involvement ,openness trust: managing diversity &conflicts	11
Financial Management Skills	Pricing, budgeting, external funding, planning	4
Technological Skills	Enhancing visitor experience, decision-making & promotion	3
Self Management Skills	Influence, enthusiasm, self-reliance, learning, problem-solving, communications creativity & innovation	8
Operational Skills	Customer focus, marketing, quality, languages	7
Legal /Ethical Skills	Legislation, honesty, safety & security	3

The questionnaires were mailed to the General Managers in the selected sample in January 2000. A second mailing took place in early February for those who had not replied by the end of January. It was decided to mail the questionnaires at this time because it was 'low season'. After the two mailings 25 completed questionnaires were received giving a response rate of 51%. At this point it should be stressed that although the sample was very small a response rate of 51% useable questionnaires can be considered good for a mail-based survey.

Results and Findings

Of the 25 attractions that returned completed questionnaires, the majority (14 or 56%) were located in Scotland's heavily populated central belt, which includes the cities of Glasgow, Edinburgh, Dundee and Stirling. Six attractions or 24% of the responses came from visitor attractions in the Northeast, which includes Inverness and Aberdeen. Three (12%) attractions were located in the Northwest, and lastly two attractions or eight percent were found in the South of Scotland.

A broad range of attractions were included in the sample. The two biggest groupings were in the Interpretation and Visitor Centre, and Museums and Art Galleries categories. Castles, Historic Houses, Gardens and Industrial and Craft Premises made up the remainder of the sample. Just over two-thirds (67%) charged an entrance fee to the attraction or some part of the site, for example for a guided tour or special displays. On average the attractions in this sample employed around 70 full-time employees, with 80% employing less than 100 people.

In relation to the biographical data of the respondents, over three-quarters (76%) were male which indicated that there was an under-representation of female managers. The average age of the male respondents was 43.5 years, whilst the females' average age was 29.3 years. There was quite an even distribution across the age categories but over one-third (34.8%) of the respondents were aged between 35-44. On average the visitor attraction managers in this sample had been working in this sector for 6.16 years and their current place of work for 4.38 years. In relation to other biographical details it was found that 43.5% described themselves as general managers, 34.2% as supervisors/officers and 21.7% as directors. In terms of qualifications, 45% of the sample was educated to degree level or above and 20% possessed diplomas in various disciplines.

Perceived Importance of Managerial Skills

The responses to the skill statements were analysed using the same system as Tas (1988). Therefore those skills statements which attained a mean response rating over 4.50 across the sample were described as essential managerial skills; when a mean rating was between 3.50 and 4.49 it was deemed to be of considerable importance, and when the mean rating was between 2.50 and 3.49 the skill was rated as moderately important. By using this approach, it was found that 11 of the skills statements were perceived as being essential by the respondents, 26 were rated as being of considerable importance, and the remaining eight were moderately important. The skill statements that had the highest mean rating and topped the essential scale across the sample was the statement, 'Keeping up to date with relevant legislation, for example, Health & Safety and Employment'. The respondents also rated as essential the ability to 'provide a safe and secure environment for visitors'. Amongst the skill statements that were rated as being of considerable importance, were 'attracting and recruiting appropriate staff' with a mean rating of 4.48, and 'encouraging team-working' with a mean rating of 4.40. For those statements which were rated as being of moderate importance, being able to 'bench-mark against international standards' with a mean response rate of 3.36 was at the top of this category. According to the mean response ratings at the bottom of this scale of 45 skill statements was 'speaking a foreign language(s)'.

Table 2. Skill Statements Rated as Essential by Respondents

	Rank (Overall)	Rank (Cat.)	Mean	SD
Keeping up to date with relevant legislation. For example Health & Safety and Employment	1	1	4.76	0.52
To provide a safe and secure environment for visitors	1	1	4.76	0.44
Understanding customer needs	2	1	4.64	0.64
Understanding how to lead the organisation's employees	3	1	4.60	0.65
Training and developing staff	3	1	4.60	0.65
The ability to establish trust between staff and management	3	1	4.60	0.65
To be enthusiastic and committed to the attraction	3	1	4.60	0.58
Meeting customer needs	4	2	4.56	0.65
To motivate and enthuse employees	4	2	4.56	0.65
To communicate effectively	5	2	4.52	0.51
The ability to deal honestly in business	5	2	4.52	0.59

As was mentioned in the methodology section the respondents were also asked to rate the skill statements in terms of their importance for the future. At the top of the essential category here was the skill statement 'understanding how to lead the organisation's employees'. Another skill which was rated as being essential by the managers here echoing their views on current skill needs was 'Keeping up to date with relevant legislation'. Statements regarding the skills of 'marketing the attraction effectively' and 'being able to manage visitors' problems with understanding and sensitivity' were at the top of the considerable importance category. The skill statement regarding the 'ability to see and act beyond local boundaries - in a global tourism market', was placed at the top of the moderately important future skills needs bracket. Rated lowest overall in this category was the statement, which referred to a manager's ability to 'understand the contradictions between stakeholders'. According to these results, the managers felt that possessing the 'ability to speak a foreign language' was also low in importance in the future. Again this is similar to how they felt about the importance of this skill currently.

Differences in Perceptions According to Certain Visitor Attraction Contextual Characteristics

In this section some of the more significant differences in perception surrounding the importance of various managerial skills are compared on the basis of the attractions contextual characteristics. The contextual variables, investigated were: Size, as measured by number of employees; whether the attraction was in an urban or rural location, and finally whether the attraction charged an entry fee or was free to the public. In sum it was felt that such contextual factors could go some way to explain how the respondents rated certain skills for importance.

The first contextual characteristic considered was whether the attraction charged an entry fee and those, which were free to the public. In the total sample, 67% of the attractions charged an entrance fee whilst 33% were free to the public. When the mean responses were analysed using the non-parametric Mann-Whitney U statistical test for significance (where significance was taken to be $p < 0.05$), it was found that there was a significant difference in perceptions of respondents for a number of skills, according to whether a entrance fee was charged. The skill statements: 'The ability to see and act beyond local boundaries', 'speaking a foreign language' and 'using the internet to promote and sell the attraction' were found to be more important amongst paid attractions (both now and in the future). When the attractions were considered according to their size, where those with 50 or less full-time employees (64%), and those with more than 50 employees (36%), only two variables were found to be significantly different. Firstly, for 'The ability to create and maintain shared values in the organisation (currently)', there was a significant difference of $p=0.032$, where the mean importance for those attractions with 50 full-time employees or less was M=3.81, and for those establishments with 51 full-time employees or more M=4.50. Secondly, for the skill of 'understanding the need for an appropriate pricing strategy (currently)', it was found that the mean for those sites with 50 employees or under was, M=3.53. The mean for those establishments with more than 51 employees was M=4.44, ($p = 0.020$). In the sample 16 (64%) of the attractions were located in an urban location, i.e. they were located in or close to a town or city, whilst the remaining nine or 36% were located in rural areas. Table 3 shows the statements for which there was significant difference (both now and in the future) according to where the attraction was located and the more important issues related to location are discussed further in the following section.

Table 3. Significant Differences in Importance of skills – Rural or Urban Visitor Attractions

Skills Statements (N = Now, F = Future)	No.	Mean Response (Urban)	Mean Response (Rural)	Mann-Whitney U Test (Significance)
Ability to see and act beyond local boundaries. (N)	25	2.44	4.44	0.015
Ability to see and act beyond local boundaries. (F)	25	2.81	4.67	0.013
To encourage team-working (N)	25	4.19	4.78	0.044
Speaking a foreign language(s) (N)	25	2.31	3.67	0.001
Speaking a foreign language(s) (F)	25	2.81	4.00	0.005
Keeping up to date with relevant legislation. (N)	25	4.94	4.44	0.023
To be creative and innovative (N)	24	4.00	4.78	0.013
Willing to learn new skills to cope with change (N)	25	4.13	4.67	0.018
Using technology in decision-making (N)	24	2.93	3.78	0.012
Using Internet to promote and sell the attraction (F)	25	4.31	5.00	0.013

Training and Development in the Attractions

As was mentioned previously, the respondents were also asked to comment on the training and development, which they had received for their present positions. Table 4 lists the various training and development activities which these managers had received as well as the types of training that they felt they were most lacking, categorised according to the specific skill sections as were presented in the main body of the questionnaire. This table illustrates that the most popular types of training and development were 'people management' and 'self-management' related. Examples of 'people management' type activities were: appraisal skills training; discipline and grievance training, recruitment and selection training and various other courses aimed at developing staff. In terms of 'self management' the most commonly mentioned activities were related to management development activities provided by various suppliers both in higher education and by private training and development organisations.

Table 4. Skills, Training and Development Received or Lacking in Managers

Skills Types	T&D Received Frequency	Skills Lacking Frequency
Strategic/General management	3	1
People management	11	9
Self management	10	1
Operations management	1	3
Legal/Ethical management	4	1
Financial management	2	1
Technology	2	4
None	7	12

When questioned about skills/competence and training and development gaps in their organisations, almost 50% of the respondents felt that 'none' existed. This was perhaps not surprising given the fact that these general managers may be unlikely to criticise either their own operational and managerial skills level or that of others in the attraction. For those who did fell there were skills lacking most frequently they were related to 'people management' skills amongst managers. The types of management skills that were mentioned were for example: team thinking; communication skills; self-empowerment; leadership skills, and motivational skills.

Discussion

It can be seen that although constrained due to the small sample size, the above data has produced some interesting findings. Generally the mean importance ratings given to all the skill statements were relatively high. This portrays a high degree of homogeneity in the sample, with few skills identified as unimportant, either currently or in the future. On the one hand, such a result was predictable, bearing in mind that these were some of the most successful attractions (in terms of number of visitors). However, the diversity of the attractions involved, in relation to ownership, size, purpose and location, could have resulted in greater divergence of views.

In examining essential skills, it is interesting to note the predominance of 'legal and ethical concerns', with an emphasis on those skills which have to be held to satisfy legislative requirements. Those managers in rural locations, rated keeping up to date with relevant legislation lower than their urban counterparts. Although these skills were not identified as being essential in the literature, they were raised as an area for attention through the key informant interviews in the first phase of this research study. 'People management' skills were also generally rated as being essential amongst the respondents in the sample. In the literature 'soft' or human relation skills were identified as being important (Jacobs, 1982; Geurrier & Lockwood, 1989; Christou & Eaton, 1997). This emphasis on people management skills appeared to increase when the respondents rated future skill requirements. For example managers, particularly within rural attractions, indicated that encouraging team working was an essential skill. The ability to 'effectively manage diverse employee groups, including volunteers and seasonal workers' was also perceived to be an essential skill in the future, particularly by managers in publicly owned attractions. Such a finding is perhaps not surprising, given the reliance on such employees in these attractions, often charitable and voluntary in nature.

As was seen above, Winterton et al (2000) highlighted the importance of certain personal competences for managers in the future. Only possessing 'effective communications and enthusiasm and commitment' were generally rated as essential, currently and in the future, by managers in this sample. Further analysis revealed that managers in privately owned sites rated being innovative and creative higher than their counterparts in publicly owned attractions. This could be related to the competitive environment, and the continued need for such attractions to be commercially viable. This external environmental factor may be considered to have led managers of privately owned attractions to rate the need to ensure the commercial viability of the attraction as essential (M=4.80). Similarly private sector managers rated skills associated to marketing the attraction effectively both now and in the future as essential. Again these are managerial skills which were judged to be fundamental to the future success of visitor and tourist attractions both in the literature (Swarbrooke, 1994; Ladkin, 1999) and amongst the industry experts interviewed in the first stage of this study (see McCracken and Watson, 2000 for further details)

One of the most interesting facts to emerge in this study were the generally low importance ratings given to those skills which are 'strategic/general management' in nature. Almost 50% of the 'strategic/general management skills' were located within the moderately important category, with 33% remaining in that category when the managers rated the importance of skills for the future. This finding supports those of other researchers within the hospitality industry, who exposed an emphasis on operational type skills (Geurrier & Lockwood, 1989). Some interesting findings emerged when the contextual circumstances of the attractions were considered in relation to these strategic skills. For example managers in rural locations rated the ability to 'see and act beyond local boundaries' as considerably important now and essential in the future. One explanation for this finding may be that, their often-isolated location may require them to be more creative and innovative in how they manage the attraction, with less local support mechanisms to utilise. When asked directly about this skill of 'being creative and innovative' it was generally found to be essential by managers of rural attractions. Other factors, which support a view that rurally based attraction managers, have to be more self-reliant, relate to their perceptions surrounding the future use of the Internet. Willingness to learn new skills to cope with change was also rated as being essential in the future, by rural attraction managers. When the data was analysed on the basis of size, it was found that managers of attractions employing 51 or more employees felt that the 'ability to create and maintain shared values in the organisation' was currently essential. Winterton et al. (2000) present this as a key organisational capability needed for future success.

In terms of other operational skills those associated with 'understanding and meeting customer needs' were also generally seen as being essential, both now and in the future. It was surprising however that at the current time, the use of technology to aid managerial decision making, and to enhance the visitor's experience, were rated as only moderately important skills. In certain sections of the literature (Winterton et. al, 2000; Keep & Mayhew, 1999) the ability to use Information Technology was emphasised as being a critical skill. These skills however were felt to be becoming more important and hence were rated higher in the future by these managers. For example 'using technology to promote attractions' was currently seen to be of considerable importance, but to be essential in five years time. In analysing this further, it was found that managers within paid attractions seemed to appreciate the importance of using technology, both now and in the future more than managers in free attractions. It was somewhat illuminating however that speaking a foreign language was clearly perceived as being the least important of all the skills listed. Further analysis, revealed that those attractions which did not charge an entrance fee rated this most lowly, both now and in the future, whereas paid attractions rated this as being currently of moderate importance and in the future of considerable importance. Managers of urban-based attractions rated foreign language skills much lower than rural attractions. It was considered that this may be associated with size (as measured by number of employees), but this was not found to be of significance when analysed.

In examining the training and development that these respondents had received, it can be seen that the managers appeared to want more courses and activities that were essentially operational in nature. Given the high degree of importance that the managers associated to possessing these types of skills this finding was not surprising. This finding also reflects what has been written by various authors who have argued about courses designed to enhance the skills and competence of employees in visitor attraction and tourism industry. For commentators like Ladkin, (2000) and Swarbrooke (1995) educators should focus in the future on providing skills related to customer service, retailing skills training, or food and beverage skills training to staff in these visitor attractions. But also they stress the need for more strategic training and development for these types of managers. Also significant here was the respondents views that 'people management' training and development was needed. Given the attention that such issues have attained both from generic and industry based researchers it would appear that attraction managers appreciate the need to develop these skills.

However less reassuring was the finding that when asked about managerial skills gaps present in their sites, almost 50% of the sample felt that none existed. There appeared to be evidence of a distinct lack of training aimed at enhancing technological skills in these attractions and only a small minority of respondents identified technological skill gaps in their organisations. This may convey a rather complacent attitude towards training and development needs or highly effective training, which has filled the gaps.

Conclusion and Contribution to HRD

An increasingly competitive environment is focusing attention on the managerial skill requirements for visitor attractions in Scotland. The purpose of this research was to explore what key skills were important to managers in the most successful visitor attractions. The discussion centred on key findings from the survey, in the context of the literature reviewed and the views elicited from the preliminary interviews. (McCracken & Watson, 2000)

The most illuminating finding was the importance given to operational level skills by the managers. Little credence was given to 'strategic/general, technological and self management skills', which were emphasised in earlier studies as being the very skills managers will require to deal with rapid change. This accentuates the need for training and development to equip managers with the skills needed to cope with the evolving business environment.

The survey revealed that some 'people management' skills were felt to be vital by managers and that training/development had taken place in many of the establishments. However, this was by no means universally supported and often there was a perceived lack of people management skills, above all others. This is obviously an area where further training and development is required. If these findings are indicative of the most successful visitor attractions the study highlights the need for further research across the sector as a whole. This would enable policy and decision makers at the macro level in this industry to address appropriate training and development issues and thus enhance the position of visitor attractions as a whole in Scotland.

This paper contributes to the HRD body of knowledge in two ways. Firstly, scant attention has been paid to the tourism industry by HRD researchers. The growing importance of Tourism to many economies is making this a vital sector to research, which has developed distinct educational and training programmes. Secondly, this unique pilot study can be used as a platform to stimulate further discussion and debate surrounding managerial requirements not only in this industry but also at a more general level.

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An International Assignment and Managerial Performance: Job-related Variables Relative to Effective Performance of Japanese Expatriates

Kiyoe Harada
HRD Research

Despite the importance of international assignments in global business, expatriate failure has been a persistent problem in the literature. The study focuses on the effectiveness of Japanese expatriates and job-related variables to examine relationships between them. Multitheoretical frameworks; the theory of job characteristics, role perception, and work adjustment, were applied. The set of job-related variables were significantly related to expatriates' effectiveness. HRD implications and discussion are provided.

Keywords: Expatriate Effectiveness, Job-Related Multidimensional Approach

An international assignment is one of the critical activities for the company and individual managers. In the literature, several studies have focused on expatriates' cultural adjustment, selection and training, including cross-cultural training, as well as on performance in international assignments. These studies contribute to finding dimensions of cultural adjustment, the premature returning criterion, selection criteria, and types of training programs (Black & Gregersen, 1991; Hanada, 1984; Katz & Seifer, 1996; Kealy, 1996; Nagai, 1996).

Problem Statement

Despite the importance of expatriates' roles in international business activities, failure in international assignments has been a persistently occurring problem in expatriate studies. Many studies discuss expatriate failure, defined by premature returning or financial burden due to premature returning. However, there have been questions raised regarding (a) relying on a single criterion, premature returning, and (b) a lack of descriptions of job-related success and/or effectiveness (Caligiuri, 1997; Harada, 1999; Kealey, 1996). This might have limited understanding of expatriates' effectiveness in actual international assignments. In fact, approximately 50% to 80% of expatriates tend to perform less effectively than expected (Kealey, 1996) and three-forths of Japanese expatriates tend to be adequate to lower performers (Sadamori, 1994). The criticality of these remarks is that these managers could be seen as successful, based on the premature returning criterion, even though they may not be effective. However, few studies have looked into effectiveness relative to job-related variables (Caligiuri, 1997; Harada, 1999).

Given these cautions, understanding the job-related effectiveness of expatriates has been a critical issue. Responding to this issue, the assessment of expatriates' effectiveness should take a multidimensional approach in an international work setting where more responsibilities and a wider range of work activities are required. In addition, an effectiveness measure should be based on job-related criteria (Bird & Dunbar, 1991; Borkowski, 1999; Harada, 1999). The purpose of the study was to examine relationships between the effectiveness of expatriates and the following set of independent variables: (a) job content, (b) job context, (c) role conflict, (d) role ambiguity, (e) cross-cultural work adjustment, and (f) length of stay in a host country, and the dependent variable (the effectiveness of expatriates' performance in their international assignments). The study also examined a proposed model of expatriate effectiveness. The focus was on Japanese expatriates in their U.S. assignments. Results of this study will contribute to the body of HRD knowledge through providing empirical data and closely job-related information. This information also provides implications for HRD roles in international management and suggestions relative to expatriate training and development.

Theoretical Frameworks and Hypotheses Development

Job-related factors influence the effectiveness of expatriates in the ways they perform the daily tasks, interact with local employees, and deal with different perceptions toward work. Based on these notions, the study used the

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following theoretical frameworks; (a) the theory of job characteristics, (b) role perceptions, including role conflict and role ambiguity, and (c) cross-cultural work adjustment.

Theory of Job Characteristics

The characteristics of a given job can be seen as a part of the complex nature of international assignments, which could relate to the way expatriates carry out their assignments (Bird & Dunbar, 1991; Dowling, Schuler, & Welch, 1994; Naumann, 1992). The job characteristics theory concerns the designing of a job and tries to understand how job characteristics relate to individual effectiveness. The theory suggests that certain kinds of job characteristics tend to increase the effectiveness of job performance. Based on this assumption, characteristics of a job are composed of job content (job characteristics) and job context (immediate work environment) (Oldham, Hackman, & Pearce, 1976; Sims, Szilagyi, & Keller, 1976).

Job content refers to the summated scores from four dimensions; (a) variety (the wide range of tasks, equipment and procedures in work), (b) task identity (whole or a portion of work to be defined), (c) autonomy (given freedom for work scheduling, procedures to be followed and tools), and (d) feedback (receiving job information) (Sims et al, 1976). These dimensions of job content can be magnified in the U.S. work environment where Japanese expatriates are given a wide range of work activities under limited operational resources and support from headquarters. The dimensions of job content indicate aspects of the job in international assignments. Therefore, job content that Japanese expatriates perceive would relate to effective performance.

Job context concerns the immediate work environments relative to social relationships. This is based on the assumption that a social environment could relate to the effectiveness of employees through minimizing distractive relationships within a workplace. Therefore, employees are able to concentrate on their performance (Oldham, Hackman, & Pearce, 1976). Job context includes two dimensions: (a) friendship opportunity and (b) dealing with others. The former dimension refers to the degree to which Japanese expatriates see opportunities to have friendships with America employees. The latter refers to the degree to which Japanese employees involve American employees in the course of the completion of their jobs. International transfer inevitably requires expatriate managers to build new social relationships with local employees. In this regard, how Japanese expatriates see social relationships with American employees would relate to their effectiveness in the assignments.

Hypothesis #1. There will be a relationship between job content that expatriates perceive in their jobs and the effectiveness of their performance.

Hypothesis#2. There will be a relationship between job context that expatriates perceive in their jobs and the effectiveness of their performance.

Role Conflict and Role Ambiguity

International management exercises the set of practices where an organizational system is operated in a different socio-economic system with different organizational systems. Within the multiplicity of these systems, demands for success from different organizations may bring different interpretations of role requirements and expectations. Such different interpretations can depend on how expatriate managers perceive their roles in carrying out their assignments. A role perception study is derived from organizational structure as well as managerial control and coordination. The focus of the study is on employees' reactions to the given organizational roles and about information concerning performance expectations (Van Sell, Brief, & Schuler, 1981). The assumption is that when employees perceive a high level of conflict and ambiguity in the given role, these perceived roles are negatively related to their performance due to increased stress, which leads to employees who become dissatisfied (Jackson & Schuler, 1985). The role perceptions include: (a) role conflict and (b) role ambiguity. Role conflict is defined as "the dimensions of congruency-incongruency in the requirements of the role" and a definition of role ambiguity is "the degree to which clear information is lacking regarding the scope and responsibilities of the given organizational position" (Rizzo, House, & Lirtzman, 1970, p155).

Role conflict and role ambiguity have also been applied in expatriate adjustment studies, which found that expatriate managers tended to have difficulty in predicting the outcomes of their behaviors in foreign assignments (Black & Gregersen, 1991; Shaffer, Harrison, & Gilley, 1999). Due, in part, to Japanese companies often giving higher managerial positions to their expatriates, they often experience difficulties in role adjustment to the given international assignments (Sonoda, 1998). In addition, perceived expatriate roles may be different between Japanese and American employees, which results in Japanese expatriates ending up with role conflict and role ambiguity in their U.S assignments.

Hypothesis #3. There will be a relationship between role conflict that expatriates perceive in their assignments and the effectiveness of their performance.

Hypothesis #4. There will be a relationship between role ambiguity that expatriates perceive in their assignments and the effectiveness of their performance.

Cross-Cultural Work Adjustment

Due to international assignments automatically involving physical and psychological transitions from one country (home country) to another (the host country), studies have indicated adjustment problems as a major reason for expatriate failure (Black & Gregersen, 1991; Tung, 1981). Cross-cultural adjustment suggests that as individuals go through adjustment stages, they become adjusted to a host country environment, and as such they can function in their given assignments (Black & Gregersen, 1991). Unlike domestic work adjustment, international work adjustment usually requires expatriates to deal with greater disruptions of role routines in work, tasks, and social relationships. Therefore, the level of uncertainty that expatriates have to deal with is much greater in an international adjustment than in a domestic adjustment (Janssens, 1995; Shaffer et al., 1999). In addition, a study by Thomas and Toyne (1995) examined adjustment of managerial behaviors among Japanese expatriates. Their study showed that when American subordinates perceived that Japanese expatriates were well-adjusted to American-style managerial behaviors, the Japanese were perceived to be more effective. While expatriates' cross-cultural adjustment has been studied, cross-cultural work adjustment has not been included in examining the effectiveness of Japanese expatriates.

Hypothesis #5. There will be a relationship between cross-cultural work adjustment that expatriates perceive in their assignments and the effectiveness of their performance.

Furthermore, studies examining a relationship between work adjustment and expatriate effectiveness have shown inconsistent results, relative to statistical significance and magnitude of relationships (Harada, 1999; Parker & McEvoy, 1993). These inconsistencies raise a question about what factors really matter for expatriate performance when they are in assignments.

Research Question 1. Which of the two variables, job content or cross-cultural work adjustment, will have a stronger relationship with the effectiveness of expatriate performance?

Length of Stay in a Host Country

The assumption underlying the length of expatriates' stay in a host country is that the longer they stay, the more familiar they become with their jobs and working conditions, and the more familiar expatriates become, the better their performance will be. Therefore, the length of stay in a host country can be one of the influential factors that could relate to effectiveness of performance. However, the length of stay depends on the specific companies and the specific assignments the expatriates are given. Therefore, expatriates' lengths of stay in U.S. assignments vary from individual expatriate to individual expatriate.

Hypothesis #6. There will be a relationship between the length of stay in a host country and the effectiveness of expatriate performance.

Expatriate Effectiveness

In the expatriate literature, expatriate failure, defined as premature return from a host country, has been a major criterion, while a clearly defined description of expatriate success remains lacking (Kealey, 1996). In addition, expatriate effectiveness has been equated with cultural adjustments, job satisfaction, expatriates' intention to stay, and/or intercultural effectiveness (Black & Gregersen, 1991; Clark & Hammer, 1995; Feldman & Thompson, 1993; Janssens, 1995). However, predictors and criteria are used interchangeably and findings tend to be inconsistent. Few studies have looked into expatriate effectiveness relative to managerial skills, measurement of effectiveness, and cultural influence on managerial behaviors (Black & Porter, 1991; Caligiuri, 1997; Clark & Hammer, 1995; Harada, 1999). However, understanding about what variables may relate to effective expatriate performance still remains somewhat inadequate. Based on the complex nature of international assignments, assessing the effectiveness of expatriate performance should take a multidimensional job-related approach. Through the discussions on each job-related factor, this study proposed a linear relationship between the selected independent variables and the effectiveness variable.

Hypothesis #7. There will be a relationship between the set of independent variables: (a) job content, (b) job context, (c) role conflict, (d) role ambiguity, (e) cross-cultural work adjustment, and (f) length of stay in a host country, and (g) the dependent variable (the effectiveness of expatriates 'performance in their assignments).

Research Question 2. Which independent variables in a Model of Expatriate Effectiveness contribute to explaining the effectiveness of Japanese expatriates in their U.S. assignments?

Methodology

The sample for this study was Japanese expatriates assigned to work in the United States from their home offices. The sample size (n=105) was based on the use of multiple regression analysis. Survey questionnaires were sent to 103 Japanese companies who agreed to participate in this study. The final usable data (n=77) was obtained from 87 companies who responded to the questionnaires (84.4% response rate). The questionnaires: (a) Job Characteristic Inventory, (b) role conflict and role ambiguity, (c) cross-cultural work adjustment, (d) effectiveness measure, and (e) demographic information about companies and individual participants, were sent to the companies. Most Japanese expatriates (87.6%) were in their first international assignments.

Measurements

Measurements used in this study have been developed in the U.S. Therefore, translation and back-translation processes were undertaken. Job Characteristic Inventory, by Sims et al (1976), consists of 30 items, including job content (20 items) and job context (10 items). A five-point scale is used, which ranges from 1 as "very little and/or minimum amount" to 5 as "very much and/or maximum amount." Role conflict and Role ambiguity, by Rizzo et al. (1970), consists of 21items, including role conflict (11items) and role ambiguity (10items). It measures the degree of role conflict and ambiguity that expatriates perceive. A seven-point scale is used, ranging from 1 as "very false" to 7 as "very true." Cross-cultural work adjustment contains four items, developed by Black (1988) and these items have been applied to Japanese samples (Black, 1990; Nagai, 1996). It measures how well adjusted expatriates are to the given assignment. A seven-point scale is used, ranging from 1 as "very unadjusted" to 7 as "very adjusted." The length of stay in the U.S. was indicated by the number of years and months the expatriates had been in their assignments. Effectiveness, which was adapted from Sims and Szilagyi (1976), was modified for this study. It includes four items: (a) quality of work produced, (b) quantity of work produced, (c) knowledge of work in the given assignment, and (d) overall performance effectiveness. A seven-point scale is used, ranging from 1 as "the lowest effectiveness" to 7 as "the highest effectiveness."

Findings and Conclusions

Of 77 final usable data sets, 88.3% were from Japanese wholly-owned companies and the remainder were from joint ventures. The major industries were manufacturing and combined manufacturing and sales (52.4%), and others included finance, trading, and chemicals. The mean age of Japanese expatriates was 36.5 years and the mean of length of stay in their U.S. assignment was 3.2 years. The top three rankings of current positions in the given assignments were middle management (57.3%), line management (20.7%), and supervisor (11%). Job functions that Japanese expatriates held in their assignments included marketing, finance & accounting, production engineer, dual job functions, etc.

Results of testing Hypotheses 1-6, examining the relationship between each independent variable and the dependent variable are shown in Table 1. Hypotheses examining relationships between job content ($r = .38$, $p < .05$), role ambiguity ($r = .29$, $p < .05$), cross-cultural work adjustment ($r = .63$, $p < .05$), as well as length of stay in the U.S.($r=.15$, $p<.05$) and the effectiveness of expatriate performance were supported. However, hypotheses, examining relationships between job context and role conflict were not supported at p<. 05. The result of Research Question 1 showed that work adjustment ($r = .63$) had a stronger relationship with effectiveness than job content ($r = .38$).

Table 1. Means, Standard Deviations, and Correlations for All Variables (n=77)

Variable	Mean	SD	1	2	3	4	5	6	7
1. Effectiveness	19.98	3.22	(.83)						
2. Job content	81.68	9.54	.38*	(.84)					
3. Job context	33.17	5.48	-.03	.43*	(.87)				
4. Role conflict	47.01	7.40	-.05	.42*	.29*	(.67)			
5. Role ambiguity	47.19	6.27	.29*	.32*	.29*	.15*	(.70)		
6. Work adjustment		20.25	3.11	.63*	.18*	.10	-.06	.26*	(.79)
7. Length of stay in the U.S.	3.26	2.29	.15*	.03	-.16*	-.08	-.06	-.03	1.00

Notes: *p< .05, Numbers in parentheses are reliabilities.

Hypothesis #7 examined the linear relationship between the set of independent variables and the dependent variable by using multiple regression with simultaneous entry for the independent variables (Table 2). This relationship formed the proposed model of expatriate performance effectiveness in an international assignment. The results of the full regression model were: Multiple R = .74, R-square = .56, F =. 14.8, and $p < .05$. Therefore, there were statistically significant relationships between the set of job-related variables and the effectiveness of expatriate performance. The proposed model was applied to this data set. The results for Research Question 2 showed the following rankings; 1st-work adjustment ($\beta = .54$, $p < .05$), 2nd - job content ($\beta = .40$, $p < .05$), and 3rd - job context ($\beta = -.23$, $p < .05$). On the other hand, role conflict, role ambiguity, and length of stay in a host country did not show statistical significance. Therefore, the effectiveness of Japanese expatriate performance in their U.S. assignments was explained by adjustment to their work, content of tasks in their jobs, and context of their workplaces.

Table 2. Regression of Expatriate Effectiveness on the Independent Variables (Simultaneous Entry) (n=77)

Full Regression Model	B	β	t	Sig.
Constant	1.34		.45	.65
Variables				
Job content	.14	.40	4.01	.00
Job context	.13	-. 22	-2 .45	.12
Role conflict	- .06	-. 14	-1 .52	.13
Role ambiguity	.06	.11	1.31	.19
Work adjustment	.56	.54	6.48	.00
Length of stay in the U.S.	.16	.11	1.43	.16

Full regression model: R-square=.56, R-square change=.559, F=14.81, p<.00

Discussion, Recommendations, and Implications to HRD

The study focused on the relationship between job-related variables and the effectiveness of Japanese managers in their U.S. assignments. A multidimensional framework was applied to test each relationship between variables and multiple regression analysis was performed to examine the relationship between the set of independent variable and expatriate effectiveness. The Theory of Job Characteristics suggests that a high score on job content and job context tend to result in increased effective performance. The effectiveness of Japanese expatriates is related to job content in the U.S. assignments, which also explains a large amount of the variance in effectiveness. However, job context in this study did not support the theory. In this respect, regardless of the immediate work settings, Japanese expatriates can be effective. Regarding the high level of job content (highly complex and demanding in U.S. assignments) and the fact that most Japanese expatriates were on their first international assignments, these expatriates face a major challenge in the given assignments. In this regard, Human Resource Development (HRD) professionals and Human Resource (HR) managers should understand the task characteristics in an international assignment. As such, HRD professionals can integrate job-related training programs that widen the range of job skills into a part of pre-departure preparation. Some possible job-related training can be done through job rotations and/or project assignments. Then, HR manager can set up job rotations and/or project assignments according to individual career interests.

Role conflict and role ambiguity were examined to see whether perceived roles in the given international assignments related to the effectiveness of expatriate performance. These two concepts suggest that higher role conflict and ambiguity tends to result in lower effective performance. In this study, Japanese expatriates showed some levels of role conflict and ambiguity. However, role conflict showed a negative, but not statistically significant relationship with effectiveness. In contrast, role ambiguity, involving performance expectations and organizational factors, showed a statistically significant positive relationship. However, these inconsistent findings may not be so surprising. Rizzo et al. (1970) states that employees tended to put up with stressful situations and to develop adaptive behaviors when they knew their length of stay in that situation. Based on this notion, the duration of overseas assignments among Japanese companies assign expatriates to stay between 4 and 5 years and the average years in the U.S. assignments was 3.2 years. In this regard, Japanese expatriates might have had an idea how long they were going to be in the assignments, which tended to reduce stress and to allow them to acquire adaptive behaviors. However, further study, examining relationships between role perceptions and expatriates, should provide additional information. The results of this study provide implications for HRD professionals. For instance, Japanese companies often give higher managerial positions to their expatriates, which tends to cause Japanese expatriates role conflict and ambiguity. In addition, Japanese expatriates often face unclear performance expectations because of different perceptions in effective performance between Japanese and U.S. managers. In this respect, HRD professionals can assist home and local offices to establish guidelines, regarding role requirements, performance standards and appraisal criteria. These guidelines are provided to expatriates at pre-departure briefing sessions.

Cross-cultural work adjustment is based on the assumption of a relationship between a high level of work adjustment and effectiveness of expatriate performance. The study conformed this assumption and cross-cultural work adjustment was the variable contributing most to the Japanese expatriates' effectiveness. Regarding this result, HRD professionals should focus on work-related adjustment issues in training programs, which help expatriates adjust to the given assignments in a relatively short period of time. To do this, local HR managers collect actual job-related problems and HRD professionals provide problem-solving skills at expatriate work sites. In addition, adjustment training should not exclude cultural aspects, such as differences in work culture (e.g., values, motivation, and attitudes).

Length of stay in a host country examined whether the time to become functional in the given assignment would relate to effectiveness. The result was no significant relationship with the effectiveness of Japanese expatriate performance. Interestingly, none of the independent variables in this study showed a significant relationship with length of stay in a host country. This result might be due to the mean length of stay in the U.S. assignments (3.2 years) among Japanese expatriates. However, further research should be done and accumulated date will provide a possible explanation for this result.

The linear relationship of the independent variables with the effectiveness of expatriate performance was intended to examine a model of effective expatriates in an international assignment. The full regression model found a substantive relationship between the set of job-related variables and effectiveness. In this regard, HRD professionals can help management and the HR manager provide the following information: (a) adequate task-related information in international assignments, (b) individual career plans and delineating job rotations and project assignments, (c) clearly-defined role requirements, performance expectations, differences in role perceptions, and (d) cross-cultural work-related adjustment issues.

Limitations of this study are the sampling method and size. Due to the small sample size used in this study, the findings tend to be unstable and the results can only generalize to those companies, which took part in this study. For future research, a large random sample is required. The nature of an international assignment varies with the type of business, such as manufacturing, finance, and trading. The variability of business could influence results of a study. In this regard, specifying types of businesses is another possible consideration for future study. Because some independent variables showed inconsistent results, other variables should be taken into the model of effectiveness in future studies. Possible additional variables include contextual managerial factors, specific expatriate factors, and cultural factors. The study contains an inherent common method problem; therefore, assessing the effectiveness of expatriates requires a third party.

Contributions to New Knowledge in HRD

The results of this study, focusing on job-related variables in examining the effectiveness of expatriates in international assignments, expands HRD knowledge in the following areas: (a) job characteristics theory and cross-cultural work adjustment concepts are applied in an expatriate study with foreign expatriates, (b) a multidimensional approach is useful in the expatriate study and multiple theoretical frameworks specify boundaries of effectiveness where variables are controlled for hypotheses testing and (c) factors contributing to the effectiveness of expatriate performance are found. Particularly, multiple theoretical frameworks provide HRD professionals the following practical contributions:

1. Making collaborative efforts in international management by helping home and local management to provide information about (a) tasks in international assignments, (b) individual career plans and delineating job rotations and project assignments, (c) role requirements, performance expectations, and differences in role perceptions in an assignment, (d) cross-cultural work-related issues, and (e) expatriates performance problems.
2. Expanding roles of HRD professionals through participating in expatriate selection, career management, and performance evaluation.
3. Developing job-related training, such as a wide range of tasks, work-related problem-solving skills, and different role perceptions in international assignments.
4. Redesigning cross-cultural training programs by focusing on the local business and work culture (e.g., motivation, values, attitudes), which help expatriates understand local employees' behaviors underlying cultural influence.

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Modeling the Impact of Managerial Behavior in a Store Environment

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Organizations measure different aspects of workplace behavior and performance, yet few capitalize on these data by empirically demonstrating key relationships among variables. This study contributes to the literature by: (a) providing an applied example of linkage research that leverages various sources of organizational data; and (b) modeling a predictive relationship between managerial behavior (multisource feedback) and internal (climate survey ratings) and external (sales and shrinkage) performance measures across 500 different stores in a retail organization.

Keywords : Multisource Feedback, Surveys, Managerial Behavior

As products of the information age (or perhaps more appropriately now, the *internet* age), it should come as no surprise that organizations are relying more and more on measurement to drive their assessments of employee talent, managerial behavior, and various organizational outcomes such as satisfaction and empowerment. As Hronec (1993) predicted several years ago, these data have indeed become the *vital signs* of organizational health and performance in contemporary life. Unfortunately, despite the significant amount of time, energy, and expense invested in these processes, many firms have failed to take full advantage of the wealth of rich information that has been collected (Church & Waclawski, 2001). Whether due to political concerns, methodological complexities, disconnected information technology, or general lack of awareness, there is a tendency among many firms to conceptualize their various measures and data sources as independent entities with unique foci.

This situation, however, can be improved. As applied researchers in HRD, OD and I/O psychology, we have a unique set of analytic skills and conceptual thinking that can be used to help organizations make better use of their data, and simultaneously contribute new knowledge and findings to these fields in general. In fact, one could argue that as organizational scientists we have an inherent professional *obligation* to help organizations leverage (and ultimately align) their various data sources to help drive understanding, utilization and improvement. To this end, the purpose of this study is contribute to the literature in two ways. First, this paper will provide an applied example of linkage research in action that leverages various sources and levels (individual, group and organizational) of organizational data. Second, the results of this applied analysis are intended to build on our current understanding of the effects of managerial behavior on internal and external measures of performance across a large set of organizational sub-units. More specifically, this study will explore the predictive relationship of individual managerial behavior (assessed via multisource feedback ratings) on both "softer" internal outcomes (as measured by results from an organizational culture/climate survey) and "harder" external outcomes (as measured by actual sales and product shrinkage) using data collected from over 500 stores in a retail organization. The results of this study will have significant implications for (a) our theoretical understanding of the effects of day-to-day supervisory behaviors on both employee attitudes and true bottom-line performance, as well as for (b) the continued viability and relevance of other related HRD, OD and I/O psychology interventions such as management and leadership development efforts.

Managerial Behavior as a Key Driver of Performance. Before describing the study itself, it is important to review the existing literature and research on the effects of managerial behavior on performance at the individual and organizational levels. As almost anyone with experience in the workplace will tell you, the behaviors of one's immediate manager (i.e., supervisor) have a significant and lasting impact on the way in which work gets performed. Although there are a myriad of systemic and contextual factors that also impact individual and organizational performance—such as the visibility and/or perceived ethics of senior leadership, alignment with the mission and strategy, the nature of the internal systems and processes, the organizational culture, and the nature of the job-person fit (e.g., Burke & Litwin, 1992; Katz & Kahn, 1978)—none of these have as much of a direct influence as the day-to-

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day actions of a given manager on the shop floor. At the most basic micro level of analysis, managers impact the individual experience of each direct report under their supervision. They do this by engaging in such activities as providing direction, communicating decisions, recognizing employees for their contributions, and offering career development opportunities, all of which in turn, creates a work group climate (Church, 1995a; Daniel, 1985; Schneider & Bowen, 1985) that affects the way work is performed. Moreover, at the meso and macro levels of analysis, the cumulative actions and decisions of managers reflect (and indeed shape) the overall culture of the organization and the operationalization of its managerial subsystems as well (Katz & Kahn, 1978). Thus, understanding effective managerial behavior in a given context is critical for organizational survival and success.

It is for these reasons that day-to-day behavior is one of the key targets of and levers for HRD, OD and I/O psychology related change efforts. Although typically approached from an individualistic perspective via some form of behaviorally-based diagnostic measure such as multisource feedback (Antonioni, 1996; Bracken, 1996; Church & Waclawski, 1998; McLean, 1997; O'Reilly, 1994), the larger design is often one of communication and reinforcement through one-on-one coaching to enhance self-awareness with the expressed purpose of creating a significant change in the behaviors of the leaders and managers of the company toward some new desired outcome or future state (Church, Waclawski, & Burke, 2000; Goodstone, & Diamante, 1998). Moreover, many different approaches to executive and leadership development--from the Leaders Developing Leaders (LDL) model (Tichy, 1997), to more traditional skill based training (e.g., Shipper & Neck, 1990), and more recently competency modeling--also heavily emphasize the importance of the manager-direct report dyadic relationship in organizational success and performance.

In general, there is strong support in the literature for the impact of managerial behaviors on certain individual attitudes and perceptions as experienced in the workplace. For example, relationships have been demonstrated in the following areas: providing direction and autonomy to feelings of empowerment (Coruzzi & Burke, 1994), a dual emphasis on task and people concerns to feelings of team spirit (Daniel, 1985), participation in decision-making to satisfaction and acceptance of workplace change (Sagie & Koslowsky, 1994), inspiring and motivating employees around a shared vision on satisfaction and feelings of contribution (Church, 1995a), and relationship management skills on peer to peer influence effectiveness (Church & Waclawski, 1999).

While these studies and their associated findings are certainly important for understanding the "internal" or subjective impact of managerial actions on employees (such as culture/climate, job satisfaction, or feelings of empowerment), few studies, or organizations for that matter, have taken the next step in the process to include *external* measures of performance. Largely, this is due to either (a) unforeseen complexities inherent in the data linking process itself (e.g., such as lack of foresight regarding the depth to which a certain organizational survey effort might need to be examined, or the anxieties associated with collecting certain demographic information on a multisource feedback measure), or (b) internal turf wars and/or fear of releasing confidential performance information and metrics that are vital to the organization's position in the marketplace. Despite these often justifiable concerns, however, making data-based connections between specific behaviors in a given setting and hard organizational outcomes provides a very powerful means for diagnosis and assessing levers for change (Church, 1995b; Rucci, Kirn, & Quinn, 1998; Wiley, 1996). Moreover, these same linkages can provide an important and very credible means of justifying the impact of OD, HRD and I/O psychology related interventions (Cady, 1998; Church, 2000). Since much has been written, and many criticisms levied, at the impact (or lack thereof) of many organizational change initiatives in general (e.g., Golembiewski & Sun, 1990; McLean, Sullivan & Rothwell, 1995), research and practice that support this approach and demonstrate its impact are sorely needed. In sum, demonstrating these types of linkages is useful to three sets of constituents: (1) the organization itself from a larger decision-making perspective; (2) other practitioners and organizations who might benefit from leveraging their existing data sets in a similar manner to build internal predictive models; and (3) the fields of HRD, OD and I/O psychology from a research and theory-building perspective.

Research Questions

Although exploratory in nature, the following research will attempt to demonstrate the effects that specific managerial behaviors have on both soft and hard outcomes in a retail store environment. Based on prior research in service organizations (e.g., Schneider & Bowen, 1985), it is hypothesized that certain behaviors (or clusters of behaviors) will emerge as significant predictors of various aspects of the store climate as experienced by employees. For the purposes of this study, climate is conceptualized as an *internal* outcome or performance measure since it reflects the state of employee perceptions and attitudes toward their work and the organization in general. Next, it is hypothesized that the resulting climate (i.e., employees' perceptions and attitudes) will, in turn, affect actual *external* store performance. While managerial behavior is also expected to be significantly correlated with the same set of external outcomes, since employees are the primary point of interface with the customer, the relationship to be modeled is the path between behaviors → climate → performance.

The final research question to be considered is the potential effect of self-awareness on both internal and external outcome measures. Much applied research over the last ten years has been directed at understanding the effects of different levels of managerial self-awareness (MSA) on effectiveness and performance. While several studies have linked MSA to individual performance such as supervisor assessments, promotions, or even client ratings (e.g., Atwater & Yammarino, 1992; Church, 1997a; 1997b; Furnham & Stringfield, 1994; Van Velsor, Taylor, & Leslie, 1993), few have extended their analysis to include the same sorts of internal or external performance measures such as those examined here. Thus, it is hypothesized that higher levels of MSA among store managers will be significantly related to more positive store climates and improved store performance.

Method

The data used in the present study were collected over a twelve month period in multiple stages from individuals in over 500 different stores of a nationally known chain with their corporate headquarters located on the East Coast. More specifically, following the administration of an all employee organizational culture/climate survey, multisource feedback data regarding the day-to-day behaviors of store managers were gathered from the managers themselves (i.e., the focal individual), up to 7 of their direct reports, up to 8 of their peers, and their supervisors (i.e., the district and/or regional managers) in several stages of administration (this was done to avoid response burden and time lags associated with the extended delivery process.). Both the survey and feedback efforts were part of a larger organization development and change initiative being driven by the new CEO of the firm in an effort to reshape the culture for the future. To this end, the behaviors being assessed focused on such areas as integrity, customer focus, respect, teamwork, learning, vision and accountability.

Measures. The culture/climate survey instrument used in the study was administered to all store employees (and all corporate and regional staff as well, though that data is beyond the scope of this paper). Responses were obtained from a total of 22,374 employees overall, 11,086 of which were store employees and therefore included in these analyses. The survey itself was a 94 item measure designed specifically to assess the key aspects of the organization's new strategy (e.g., excellence, respect, learning, teamwork, etc.). The items were primarily descriptive in nature and covered areas such as the employee's immediate manager, the work location, the organization as a whole, and the employee's personal internal state (e.g., "management acts according to the highest ethical standards," "people feel valued as employees of this company," "employees trust and respect management"). The majority (92 of 94) of these questions used a standard 1 to 5 extent scale where 1 equaled "to a very small extent" and 5 equaled "to a very great extent." A total score (based on the uniformly scaled 92 items) reflecting the overall average rating level (or "general positivity") was created for initial analysis purposes. Since the survey responses used for this paper were comprised only of ratings from store managers and employees (not the entire company), these data are arguably more representative of store climate (an internal outcome measure) than organizational culture.

The instrument used for the multisource feedback (MSF) process was also a custom designed measure. It was comprised of 40 items that assessed the level of practice of the desired behaviors (representing the same seven core values as assessed in the survey, though there were not the same items) for the future of the organization. A similar 1 to 5 extent scale was also used. In total, MSF data were collected on over 1,700 individuals in the organization. For the purposes of this study, however, the data examined consisted of self-ratings from 508 store managers, 2,650 of their direct reports, 900 of their colleagues, and 513 of their supervisors. This translates to average responses of 4.95 direct reports, 1.74 peers (note that peer responses were lower here than in typical research of this nature, probably due to the fact that in many cases these represent other managers located in other stores), and 1 supervisor per store manager being rated. Alpha coefficients for the total scores by perspective are listed in Table 1.

In terms of demographics, the average age of these 508 store managers was 44.67 years old, and ranged from 22 to 67. The vast majority were "old line" males (93.7%) with 20.58 years tenure in the organization, and 17.91 years in a supervisory position. With respect to education, 62.1% had finished high school, 7.1% technical school, and another 19.8% had a Bachelors degree.

Finally, hard (external) performance data by store for the same timeframe was obtained from the HR departments across the various regions and linked directly to the survey and MSF results. These performance data included: total sales, average sales per week, and stock on hand (a measure of shrinkage). Although aggregation at the store level, which is required for this type of approach, resulted in a reduction in total sample size, the final linked datasets contained approximately 500 cases of matched responses.

Analyses. In general, the approach to analysis involved three stages. First, summary scores were compared for overall effects across the various measures. Averaged ratings by source (e.g., for direct reports and for peers) were used for those individuals with more than one direct report or peer responding to the MSF process. Next multiple regression models were examined using principle components derived factor scores to determine specific areas of impact with respect to managerial behaviors (the independent variable) and outcomes (both internal—i.e., climate perceptions from the survey results, and hard performance metrics). Finally, the relationship between self-direct report congruence (the operationalization of MSA) and performance was examined using both a difference score and categorical agreement approach (e.g., Atwater & Yammarino, 1992; Church, 1997a; 2000; Church & Waclawski, 1999; Van Velsor et al., 1993) for comparison purposes with prior research.

Results & Discussion

Table 1 presents a correlation table and descriptive results for each of the key summary level measures in the study. In general, there are several interesting points to note here. First, in examining the upper quadrant only (i.e., the within-method MSF results) it was apparent that store managers and their direct report ratings yielded higher correlations overall (r = .22) than those of managers with either peers or supervisors (r = .17, r = .13, respectively).

Table 1. Descriptive Statistics and Correlations Among Key Variables

	M	SD	1	2	3	4	5	6	7	8
1. Self (MSF)	3.83	.43	.95							
2. Direct Reports (MSF)	3.83	.41	***.22***	.98						
3. Peers (MSF)	3.77	.35	***.17***	***.30***	.97					
4. Supervisors (MSF)	3.51	.45	***.13***	***.19***	***.32***	.96				
5. Climate Survey	2.99	.45	.06	***.28***	.03	***.13***	.98			
6. Total Sales	11.71	7.02	.01	***.13***	***.22***	***.29***	.02			
7. Avg. Weekly Sales	0.24	0.14	.01	***.15***	***.18***	***.32***	.08	***.85***		
8. Stock	-13121.29	45553.91	.08	***.13***	***.13***	***.10***	***.27***	-.07	-.02	
9. Age of Manager	44.66	8.58	***.12***	-.03	.01	-.03	***-.10***	.07	.04	-.03

Notes: Reliabilities are printed on the diagonal. Significant correlations are in bold italics. Sales figures are in the $1,000,000. Mean scores reported for multisource feedback (MSF) measure and climate survey represent summary scores across all items.

This is encouraging as many other applied ratings studies (e.g., Church, 2000; Harris & Schaubroeck, 1988) have found self and direct report assessments to be the *least* related overall. Often attributed to political maneuvering, and probably based on the nature of the populations typically studied—i.e., senior executives in major corporations—it is both interesting and useful to see that front line store managers appear to share more similar perceptions with their direct reports than anyone else. Moreover, while self-ratings were significantly higher than that of supervisors (t = 12.37, $p < .001$) there were no other major level differences evident among self, direct report or peer assessments, which is also somewhat unusual in the ratings literature, and is probably supportive of the differential nature of this front-line managerial population.

The second item of interest here is that while there was no significant relationship present for self-ratings and climate survey responses overall (i.e., an indicator of "general positivity"), direct report ratings regarding the extent to which the store manager practiced the 40 behaviors was significantly correlated (r = .28, $p < .001$) with both the internal experience (i.e., survey results) and total sales (r = .13, $p < .01$). Weekly sales and stock inventory were also related. As expected, the simple relationships with managerial behavior (i.e., direct report ratings) were stronger with the internal than with the external outcomes. While these correlations represent a relatively small percentage of variance explained, they do suggest the presence of significant relationships which might be further explored. Interestingly, both peer and supervisor ratings on the MSF instruments were significantly correlated with performance as well, though in the case of the supervisor, part of this relationship may have been enhanced by his/her knowledge of that individual's overall performance. As might be expected, survey results and ratings from these two sets of raters did not yield particularly strong relationships (as they were not located in the store itself).

One other interesting set of findings regarding store manager age is also worth mentioning. While older managers gave themselves higher behavior ratings, they tended to receive lower ratings at the store level on the climate survey overall. Although this might seem a trivial finding at first, it does suggest that older managers may not have, as some researchers have suggested, a more positive ratings bias in general. Interestingly enough, tenure with the organization was unrelated to any of the other variables except age ($r = .53$, $p < .001$). Years as a supervisor, however, while uncorrelated with the survey results or any of the behavior ratings other than self-ratings again ($r = .12$, $p < .01$), was significantly related to total sales ($r = .14$, $p < .01$) and average sales ($r = .11$, $p < .05$), though not stock. This would suggest that, independent of the behaviors being demonstrated, there is a tendency for more experienced managers (though not necessarily those who are older or those with more tenure in the same company) to be better at managing the total sales for their stores. Additional analyses are required, however, to test the effects of this relationship above and beyond those exhibited with respect to the behavior ratings.

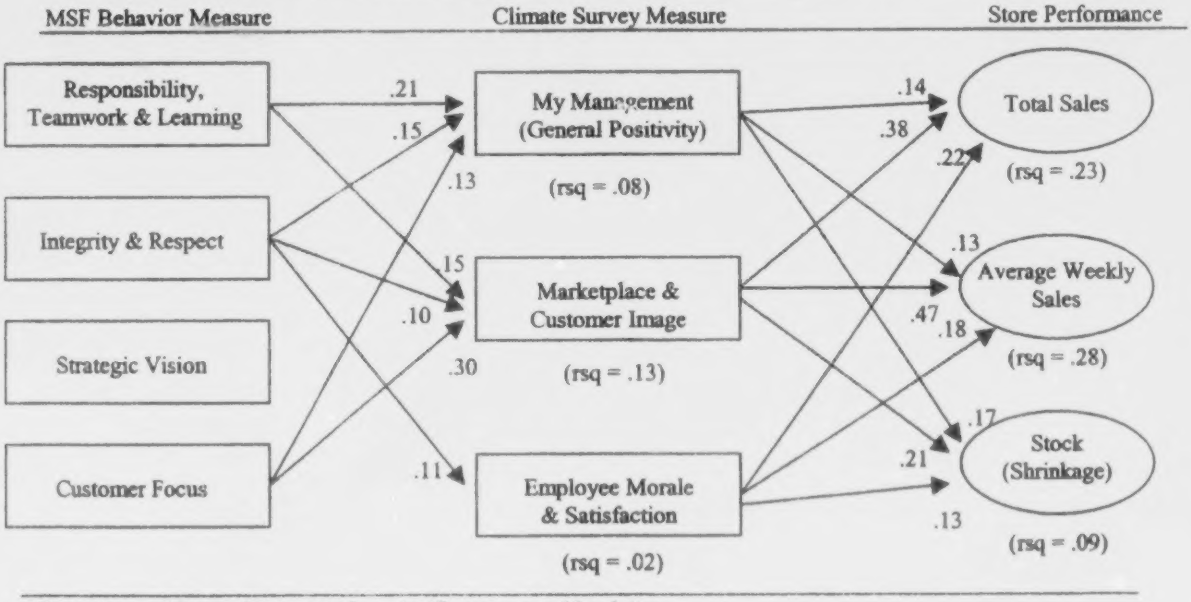
Finally, while the data were examined for potential response rate related issues, no significant effects were evident between the number of co-workers providing ratings on the MSF instrument and the level (i.e., mean scores) received. Thus, consistent with recent research on MSF applications in a professional service firm setting (Church, Rogelberg, & Waclawski, 2000), managerial performance did not have an impact on the total number of ratings received (with correlations ranging from .00 to -.05). Interestingly enough, however, there was a significant relationship on the parallel survey side of the data collection process. That is, the higher the financial performance of the store, the more surveys were returned per store ($r = .40$, $p < .001$, $r = .48$, $p < .001$), though this was not related to survey ratings overall ($r = -.03$), stock ($r = -.04$) or to the MSF ratings received. Moreover, store performance was also related to the number of peers responding to the MSF process with respect to total sales ($r = .12$, $p < .01$) and weekly sales ($r = .12$, $p < .01$). The only conclusions that can be drawn from these findings is that better performing stores yielded a more cooperative or compliant response tendency in general, but this tendency did not affect the level of survey ratings overall, or the number of direct reports or supervisors responding to the MSF process. It did, however, seem to reinforce peer's willingness to respond to the feedback effort. One interesting implication of this ancillary finding is that survey response rates are indeed affected by unit level performance. Or to put it another way, poorer performing business units are likely to yield less cooperative and compliant employees, and therefore lower response rates.

Predictive Modeling. Next, in order to explore the results and their relationships in more detail, principle component factor analyses were performed independently on the survey results and on the behavior ratings to look for specific clusters of items. Although a detailed description of these results is beyond the scope of this paper, four key dimensions on the behavior measure (using aggregated direct report data only) were identified. For the most part, these factors corresponded relatively well with the conceptual level dimensions based on the organization's seven core values. The first factor was comprised of 16 behaviors from the responsibility/accountability, teamwork, learning and excellence areas and represented 62.5% of the variance overall. A mere 4.6% of the variance was attributable to practices related to the integrity and respect dimensions (13 items), with the remaining variability split between 3.1% for the original six item cluster related to demonstrating a strategic vision, and 2.1% for the original five items cluster regarding customer focus.

The results of the factor analysis of the survey items yielded a somewhat uninspiring three-factor solution. More specifically, the first factor identified was comprised of 58 items and represented 61.9% of the total explained variance. The majority of these questions reflected "my management"—i.e., the climate created–so this may explain the singular factor here and probably represents the level of general management positivity as noted earlier. The second factor, based on 23 items and which accounted for 6.2% of the variability, centered around employees' perceptions of their organization in the eyes of the customer and with respect to their position in the marketplace. Thus, for the purposes of these analyses, this factor was labeled "marketplace and customer image." The final factor was comprised of 11 items and represented only 2.9% of the remaining variance. Based on the item content, this final factor was labeled "employee moral and satisfaction."

Next, factor scores derived from these analyses were used in a series of multiple regression equations to determine the behavioral predictors of internal and external outcomes. Figure 1 provides a graphic summary of the major relationships identified. Overall, three of the four management behavior factors were significant predictors of the three sets of internal measures derived from the climate survey data. The nature of these relationships were as one might expect. For example, store manager behaviors demonstrating customer focus were the strongest predictor for employee perceptions of marketplace and customer image. Interestingly, however, integrity and respect related behaviors were the only factor that predicted employee morale and satisfaction ratings. The extent to which manager behaviors fostered teamwork, learning and responsibility were the largest predictors of positive work climate in the store. Although demonstrating strategic vision is often an important variable for senior leaders in organizations, perhaps the lack of relationship with other measures here reflects the front line nature of the present sample.

Figure 1: Regression Results for Managerial Behaviors on Internal and External Outcomes



All equations and Beta values reported are significance at $p < .05$ or better.

Regarding the link between internal and external outcomes, in each model the three climate survey factor scores significantly predicted each of the hard outcome metrics which provides considerably better information than the correlation based on just the total score measure (see Table 1). In general, the relationships regarding the two sales measures were quite strong and were affected by the marketplace and customer perceptions the most. Clearly, these results have implications for both this specific organization, and the larger fields of OD, HRD and I/O psychology in general. While the relative degree of positivity toward management has an impact, it appears to be the emphasis on customer focus that is the strongest driver of performance at the store level. Thus, the more managers demonstrate by their own actions the importance of serving the customer, the stronger the climate overall *and* the focus on customer perceptions in the store, which in turn significantly increases sales and decreased product shrinkage.

Managerial Self-Awareness. The final set of analyses concerned the issue of MSA. Assessed in this study first via a profile similarity measure across all 40 behaviors (a standard measure of self-direct report item-by-item agreement—see Nunnally, 1978, and Church 1997a; 1997b for more on this measure), the results indicated that store managers were generally quite perceptive (i.e., accurate) overall at assessing their own strengths and areas for improvement ($d = .80$, $SD = .25$), and indeed compared favorably on this index to other samples including higher performers, influencers in a government agency, and senior service providers. When examining the correlation results with respect to performance, it was apparent that while greater MSA was significantly (though modestly) related to the store climate (i.e., summary of survey results, $r = -.10$, $p < .05$), the relationships with the two sales measures and the stock inventory were non-significant ($r = -.04$, $r = -.05$, $r = -.08$, respectively).

When the data were examined using the four group categorical approach to self-awareness, which corrects for some of the problems inherent in difference scores, a similar pattern emerged. More specifically, accurate higher *behavors* (i.e., those who had high levels of agreement and were rated more positively by their direct reports) and under-raters (i.e., those who rated themselves lower than did their direct reports) both had store climate survey results that were significantly more positive than the other two groups (see Table 2). While total sales and stock inventory yielded no significant effects by group (though the trends in means were in the expected direction), average weekly sales was, in fact, significantly higher--roughly $50,000 on average--for the accurate high *behaviors* as compared with over-raters. This would suggest that the extent to which managers are aware of their own behaviors and the impact they have on others in the workplace does indeed have a significant impact on performance. Further, MSA in this study was also consistently linked to the "softer" internal employee climate measure reflecting satisfaction and a general sense of positivity toward the workplace. These findings have significant implications for the application of feedback-based development initiatives in organizations since these programs are fundamentally aimed at enhancing such skills. Clearly, it is worth emphasizing self-other comparisons and the effect that improved self-awareness can have on people (soft) and financial (hard) results in these programs. While self-awareness alone is not enough to ensure success, it does make a significant contribution overall.

Table 2: Relationship of Self-Direct Report Ratings Congruence and Performance Outcomes

		Behavior Ratings					Outcomes			
	N	*D*	Self	Direct Report	Peer	Super	Survey Results	Total Sales	Av. Weekly Sales	Stock
a. Under-raters	156	.89	3.50	4.09	3.77	3.53	3.07	1.28	0.27	-9609
b. Accurate low *behavors*	99	.62	3.64	3.62	3.69	3.47	2.94	1.20	0.24	-20322
c. Accurate high *behavors*	99	.60	4.07	4.12	3.82	3.52	3.05	1.27	0.28	-11624
d. Over-raters	144	.91	4.16	3.52	3.77	3.48	2.89	1.17	0.23	-12021
F		87.34***	136.41***	137.37***	1.07	0.61	4.45**	0.72	2.84*	1.84
Significant Comparisons		b, c < a, d	d, c > a, b b > a	a, c > b, d			a, c > b, d		c > d	

N.B. All post-hoc comparisons done using Scheffé tests. p <. 05, ** p < .01, *** p < .001. Sales figures are in the $1,000,000.

Conclusion

In general, the findings from this paper have several implications for practice and research. Aside from the uniquely relevant information for this particular organization, these results should serve as an important and meaningful applied example of the relevance and potential power of linkage research for other practitioners and organizations with collections of untapped and disconnected datasets. Although linking different measures can be challenging, the benefits typically far outweigh the complexities involved. Probably the biggest contribution of this paper, however, is the nature of the relationships observed. While primarily reflective of a front-line service environment, as discussed above, these findings clearly demonstrate the effect that managers have on the attitudes and perceptions of employees (i.e., the climate of the workplace) *and* on bottom-line performance metrics. Clearly, customer focused behaviors were the single strongest diver of both internal and external performance at the store level, which suggests that future HRD, OD and I/O related interventions (e.g., training, feedback, incentive systems) with front-line staff should be concentrated in this area.

Study Limitations. As with any study there are several limitations in the research design and analyses described here. The present research was conducted on a single retail organizational and based on a custom set of measures (i.e., both the survey instrument and the multisource feedback tool were tailored to reflect this situation) which limits its generalizability overall. Although certainly sizable and therefore potentially robust in nature, future studies should be directed at replicating these findings with more diverse populations and in other settings and industries. Moreover, the role of the manager's personality was not assessed which might have helped to further explain certain types of behaviors and outcomes as recent studies have shown.

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The Benefits, Challenges, and Implications of Teleworking: A Literature Review

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The purpose of this review is to explore the literature related to telework and its benefits, challenges, and implications for individuals, work groups, and organizations. It investigates the possible implications of telework to HRD theory and practice. It lists a number of theories/models and discusses concerns about the lack of researched theoretical frameworks. Finally, after the benefits and challenges are reviewed, HRD recommendations and contributions are presented.

Keywords: Teleworking, Telecommuting, Flexible working

According to a recent survey conducted for the International Telework Association and Council, 19.6 million people in the United States reported working as teleworkers in 1999 (Pratt, 1999). The number of teleworkers continues to rise. Numerous factors appear to be leading this growth, such as changes in: technology, sociological trends, dual wage earner and single parent families, pressures to balance work and family life, worker values, pressures for environmental conservation, and pressures for organizations to be more competitive, reduce costs, and improve their ability to recruit and retain workers. Some literature, scholarly and non-scholarly, presented telework as one answer to improving the performance of individuals and workplace organizations while other literature reported neutral or opposing findings or views. However, the various conclusions seemed to be based upon limited scholarly research and extensive anecdotal evidence. The conflicting findings may be, in part, because of the ambiguity in telework definitions, the differences in organizational policies and practices, the wide variety of variations in samples and data collection methods, and the differences between perceived and actual results. It is no wonder that many organizations are implementing telework programs with ill-founded expectations.

A key issue in human resource development (HRD) is to identify and determine factors that influence the performance of employees and organizations. Telework initiatives/programs have been found to be one such factor. Currently, many companies are implementing programs without first taking the time to access, design, develop, and evaluate their programs. Many organizations are allowing employees to telework without first addressing the benefits, challenges, and implications inherent in this type of intervention. As a result, programs have failed and the growth of telework has not increased as rapidly as predicted (Mokhtarian, Bagley, & Salomon, 1998). If designed and implemented effectively, telework benefits outweigh the challenges and problems that employees and employers may face. For HRD professionals to effectively recommend, develop, enhance, redesign, assess, or evaluate this potential performance-improving intervention, they must first have a better understanding of telework (e.g., benefits, challenges, implications) for employees, teams, and the organization as a whole.

Purpose, Research Questions, Design and Data Collection

The purpose of this review was to explore the literature related to teleworking, and formulate implications to HRD theory and practice. The following questions were investigated: 1) What are the theoretical frameworks for researching teleworking? 2) How do employees, employers, and society benefit from formal or informal telework programs? 3) What are the disadvantages and challenges of telework for employees and employers? and 4) What findings can assist an HRD practitioner in assessing, designing, developing, implementing, and evaluating telework interventions? This review is a content analysis of scholarly literature located in various business (e.g., ABI, General BusinessFile ASAP) and psychology databases (i.e., PsycINFO, Expanded Academic Index). The key words used for the search included: telework, teleworking, telecommute, and telecommuting. Because of the limited scholarly research published in peer-reviewed journals, all seventy-six of the abstracts or texts located from a search in the ProQuest Digital Dissertation Index from 1983 to the present, were also reviewed. Among the numerous articles, abstracts, and dissertations located and reviewed, the ones that were most current and appeared to be most applicable to HRD theoretical frameworks and implications were subjectively chosen for this review.

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Definitions

To date, there appears to be no clear consensus on an exact or precise definition of telework. The number and types of terms (e.g., telecommuting, networking, flexible working, homeworking, remote working, home-based working, mobile working, electronic cottage, virtual organization, virtual workplace, satellite centers, and neighborhood work centers) used in scholarly and popular literature, referring to teleworking in part or whole, can be confusing. Ellison (1999) explained that the definitions of these terms have been the "subject of substantial deliberation and little consensus for both academics and practitioners" (p. 340). The two most common terms used in the research are "teleworking" and "telecommuting". Some researchers use these terms interchangeably assuming that telework is preferred by Europeans while telecommuting is preferred in the United States.

Because of the wide variety of definitions, four of them will be presented for consideration. First, Fairweather (1999) explained that telecommuting uses information and communication technologies to bring work to the worker and that some, but not all, types of telework should be considered telecommuting. Second, Joice (1999) defined telework as a "work arrangement in which employees work at alternate worksites to conduct some or all of their officially assigned work during paid work hours" (p. 3). He also stipulated that the alternative worksite must reduce the employees' commute, and that the employee must average at least eight hours every two weeks. Third, Kurland and Bailey (1999) interpreted telework as including home-based telecommuting, satellite centers, neighborhood work centers, and mobile working. The commonality in terms is the transition from "in-person supervision to remote managing, from face-to-face communication to telecommunication-related communication, from on-site working to off-site or multiple-site work, and, in the case of groups, from side-by-side collaboration to virtual teamwork" (p. 53). Finally, Jack Nilles, the "father" of telework, defined it as "any form of substitution of information technologies for work-related travel" (Ellison, 1999, p. 341). On the other hand, he defined telecommuting as "periodic work out of the principal office, one or more days per week, either at home, at a client's site, or in a telework center" (p. 341). These are just a few of the many differing definitions that appear to contribute to the blurred boundaries between terms. Questions revolving around why some research findings appear to be contradictory, why it is difficult to compare research findings, and why research and practitioner teleworking measurements are difficult to use remain unresolved. In this paper, telework and telecommute will be used interchangeably; the actual terms utilized in the cited source will be used.

Theoretical Frameworks

It appears that telework studies lack a common theoretical perspective to guide their research (Hyland, 1999). The frameworks utilized in the literature appear to have been taken from many fields (e.g., business, economics, management, psychology, sociology, communications, and family science). There is little consistency among researchers. The literature discussed a variety of models related to organizational telework adoption and implementation, teleworking intentions, technology acceptance, behavioral adjustment, teleworking withdrawal, and social information processing. The literature also discussed numerous theories. Some of the theories related to the decision to telework included planned behavior, reasoned action, expected utility, expectancy, prospect, agency, institutional, critical mass, job characteristic, economic, and job decision theories. Employee need theories included motivation, human relations, career development, career resilience, and the theory of required needs. Management and organizational theories discussed in the literature included motivation-hygiene, Theory X & Y, situational leadership, innovation, organization and job design, systems, information systems, contingency, and agency theory. Telework communication and support theories included social exchange, social networking, interpersonal communication, and social interaction. Finally, theories related to work and family influences included spillover, segmentation, work adjustment, ecological, role conflict, role overload, and job strain theory. It was unusual, however, to find a specific theory or model mentioned more than a few times throughout the literature. In fact, many of the models presented were original to a dissertation and later critiques or replications were difficult to find.

Some common theoretical threads do appear to address the same three theoretical frameworks discussed in some HRD literature (Swanson, 1997). These three theoretical foundations--economic, psychological, and systems--can certainly provide a solid base for future teleworking research. First, recent telework research does appear to be linked more often to an economic theory than it has been in the past. This research has been (and should continue to be) focused on analysis, action, and measurement of economic outcomes. Unless teleworking expenditures contribute to the "viability and profitability of an organization" (Swanson, 1997, p. 8), directly or indirectly, they should be eliminated. Second, psychological theory can continue to add richness and depth to teleworking research. As with HRD in general, teleworking can draw upon "theories of learning, human motivation, information processing, group dynamics, and psychology-based theories of how we make decisions and behavior in organizations" (p. 9). Third, systems theory has been, and can continue to be, beneficial as a framework for telework. Studying the system, its parts, its interactions and processes can be invaluable. Some of the current literature begins to utilize the elements of this theory even though it may not be noted as such. Overall, it appears that the narrow focus of research on teleworkers and the lack of a common theoretical foundation have inhibited the broad understanding of telework. As telework becomes utilized by HRD professionals as a performance-improving intervention, researchers may begin to use these theories and begin to create theoretical consistency in the teleworking research arena.

Literature Review

Scholarly research has been conducted on a variety of telework topics and issues. The topics reviewed in this paper include: utilization demographics and characteristics, productivity, job and organization satisfaction, organizational commitment, recruitment and retention, cost savings, work and family balance and conflict, communication and isolation, career promotion and development, program adoption, organizational culture, and teleworker management.

There appear to be common demographic similarities of individuals who telework. These include married employees, women, parents with children at home, mothers of young children, well-educated employees, and managers or professionals (Mokhtarian et al., 1998; Pratt, 1999). Mokhtarian et al. (1998) reported that women, on average, rated the advantages of telecommuting more highly than did men. Women were more likely than men to have specific motivations for telecommuting (i.e., family, personal benefits, and stress reduction), but, were also more likely to possess various teleworking constraints (i.e., supervisor unwillingness, risk aversion, and concern about lack of visibility to management). In addition, respondents with children rated the stress reduction and family benefits of telecommuting more highly than did those with no children at home.

Many researchers have suggested that only certain individuals are suited to telecommute. They have proposed characteristics as crucial to telecommuter success. Many of these characteristics, however, are based upon speculation or anecdotal evidence. Loverde's (1997) research revealed that the performance of most employees, regardless of personality characteristics, is positively impacted by telecommuting. It is commonly assumed and reported, however, that teleworkers must be self-starters, motivated, focused, self-reliant, and organized.

Many studies (e.g., Bernardino, 1996; Gainey, Kelley, & Hill, 1999; Ross, 1990) have reported productivity and performance improvements with telecommuting. Pratt (1999) found that an employee's productivity was the same or higher when they teleworked. Belanger (1997) discovered that workers perceived productivity and performance were influenced by information system technology, the availability of communication technologies, and the communication patterns of telecommuters within their work groups. Researchers do admit, however, that it is difficult to calculate productivity with the differences in the type and amount of telework, the work environment, and even the family situation of the employee.

One claim often made in citing the advantages of telework is increased employee satisfaction. Studies have reported higher levels of job satisfaction with teleworkers (De Lay, 1995; Pratt, 1999). Coveyduck (1997) found that telecommuters derived relatively high job satisfaction, work autonomy, commitment to the organization and feelings support by the organization. Welchans (1996) agreed that perceived organizational support strongly influenced job satisfaction. However, he added that this perceived support was stronger for those employees who spent some time in their employers' offices. Sturgill (1998) reported that employees who felt their organizations were not supportive of telecommuting, were not as satisfied as those who did. One reason employee satisfaction may improve is because of increased autonomy. Researchers (e.g., Coveyduck, 1997; McCloskey, 1998) have claimed that teleworking enhances employee autonomy by giving them greater control over their work situation. This autonomy appears to be a key determinant for the quality of work. According to Thompson, Vivien, and Wai, (1999), satisfied teleworkers reported "higher productivity, satisfaction with the organization's performance appraisal system, technical and emotional support from management, lack of family interruptions and greater loyalty to the organizations" (p. 34).

Another cited advantage of telework is that it increases organizational commitment. The research in this area appears to have produced conflicting findings. It is sometimes assumed that telework may actually reduce organizational commitment. Tucker (1997) reported that teleworkers had high levels of job satisfaction but relatively neutral levels of commitment. Ellison (1999) explained that when an organization assists employees in solving child care and other family concerns, organizational commitment may be increased. Hill (1995) found that productivity, morale, and organizational commitment were perceived to have been positively influenced by telework. It is important to note, however, that research samples, organizations, and instruments appeared to be very different in each of the studies cited.

In today's competitive job market, management continues to look for ways to improve both recruitment and retention of employees. Various reports (e.g., Pratt, 1999) have noted that teleworking and other family-friendly programs are valuable tools in recruiting new employees and retaining existing ones. Interestingly, Bolin (1995) found that the offer to telecommute by manufacturing firms attracted individuals who are characteristically less likely to participate in teleworking. With the option of teleworking, individuals who may not have been considered in the past (e.g., parents of young children, the disabled) are now possible candidates for job openings (Gainey et al., 1999). With regard to retention, Callaghan (1996) found that companies employing logistics professionals increased employee retention rates by offering telecommuting as a benefit. Hyland (1999), however, reported mixed results and noted that the availability, preferences, and actual use of flexibility were related to intentions to leave an organization.

Another common claim is that teleworking can save an organization money. AT&T, IBM, and other companies have reported huge savings in real estate expenses as a result of telecommuting (Kurland & Bailey, 1999). The International Telework Association & Council (1999) reported that teleworking employees can save their employers $10,006 each in job retention costs and reduced absenteeism. Another study (Bernardino, 1996) found that teleworking cost saving were perceived to be limited. She suggested that the expected perceived savings and the actual savings may be different. Most research in this area does support the finding that teleworking can reduce costs for both the employer and the employee.

An assumption commonly held by employees and employers is that teleworking will help employees balance their work and family lives more effectively. Chomiak (1998) examined the relationship between hours spent teleworking, reports of flexibility, and work and personal/family life balance. She found that teleworking was a significant predictor of flexibility, but individuals who engaged in teleworking did not report higher levels of balance. It appeared that as many individuals spend more time teleworking, they also spent more time working overall. Hill (1995) reported similar findings and noted that blurred boundaries between work and family can be difficult for many employees. Pratt (1999) disagreed as she found strong support that work-family balance can be improved with teleworking. Cree (1998) also reported that as telecommuting frequency increased, so did work-family balance, flexibility, job satisfaction, and organizational satisfaction. This study, however, was based on the total hours worked per week being kept constant. The key to telecommuter work-family balance may lie in the ability of an employee to maintain the same number of hours as in-office employees.

One aspect of this balance is that of work-family conflict (WFC). Balance is typically determined by the absence of stress or conflict. Stressful factors include work time, schedule incompatibility, quality of the supervisory relationship, job autonomy and demands, family division of labor, and child care. Common to many of these factors is the lack of time. Ellison (1999) explained that dismantling temporal and geographical barriers that separate home and work roles may actually expose employees to the possibility of role conflict. Schreiber (1999) did find, however, that telecommuting reduced role conflict and Coveyduck (1997) concluded that only low to moderate levels of inter-role conflict were identified in a sample of telecommuters. One study (De Lay, 1995) reported that male teleworkers had lower levels of WFC than non teleworker males and that women who telecommuted had higher levels of WFC than males who telecommuted. After six months of telecommuting, the women's WFC levels had decreased. The age of the youngest child living at home was a factor in the women's level of WFC, most likely because many women do feel the pressure of household chores and child care responsibilities. McCloskey (1998) summed up her research by explaining that telecommuting did not appear to be a magical work arrangement that allowed employees to balance both work and family commitments, but neither was it the oppressive work structure that will interfere with family relationships and cause employees to work long hours.

One of the greatest teleworking challenges is that employees may feel isolated. Informal communication in the workplace can provide social support as well as the ideas and information needed to perform a job more effectively. Gainey et al. (1999) found that individuals' levels of comfort, satisfaction, and commitment, as well as high turnover levels, were related to employee isolation. Many telecommuters feel they are making some sacrifices in terms of close involvement with coworkers. Spending work time at the office seemed to improve organizational communication (Sturgill, 1998). Email and richer communication media assist in maintaining the frequency of interactions and the feeling of social support. Fireman (1999) reported that the lack of office social interactions and the lack of supervisor and/or organizational support were reasons employees either reduced or stopped teleworking. Interestingly, Lowry (1996) found that neither the quality nor quantity of communication between a supervisor and employee is related to the distance between the two. Even though the communication seemed to be the same, employees in non-traditional distance jobs felt as if they were more isolated and communicated less with their supervisor. This suggests that teleworkers may actually require more communication with their supervisors than in-office employees. Again, it is difficult to compare research findings in this area because of the differences in the researchers' teleworking definitions. Some samples included full-time teleworkers, as opposed to individuals who spend only two of five days in a remote location.

Popular literature often cites career opportunities, development, and satisfaction as negative implications of teleworking. Many women and men make choices that reduce career opportunities and development but, because of personal priorities, are satisfied with those choices. Teleworking can be a major advantage to those who do not want to put their full career on hold, but have made the choice to give their primary time and energies to their families. Many employees, however, have reported concern that career development might be negatively effected with teleworking (Khaifa & Davidson, 2000). Schreiber (1999) studied the role of telecommuting in supporting career aspirations for women. Women teleworkers in this study measured their success based on their productivity, their ability to remain visible to managers, co-workers, and clients, and on their initiative in seeking and taking advantage of developmental opportunities. For women that felt success in these areas, telecommuting did not appear to hinder job success.

Research has also been conducted in areas related to teleworking adoption, organizational culture, and telework management. Ruppel (1995) looked at variables between organizations that adopt telework programs and those that do not. Variables common to adopters include a globalized marketplace, a competitive marketplace, the existence of regulatory legislation, a high degree of professionalism among staff, centralized decision-making, managerial attitude towards telework, a high administrative intensity ration, the availability of rich communication media, managers trained in the benefits of telework, the existence of perceived adequate security measures, the existence of a champion, and top management support. One variable common to organizations that do not adopt, is their concern about the negative implications telework may have on existing organizational culture. Taveras (1998) explored the impact of telecommuting on various attitudinal and behavioral components of corporate culture. He found that telecommuting had no statistically significant effect on perceived organizational support, perceived value congruence, job satisfaction and commitment, and other behavioral cultural variables.

Telework management research is sparse. Because it is uncommon to find more than one study based on a specific management research question or topic, instrument validity and reliability concerns abound. However, the studies for this review did report a number of interesting findings. Conner (1986) found that management style alone did not determine success or failure of a telecommuting program, and that management satisfaction was more an indicator of perpetuating a telecommuting program than was management style. Speeth (1992) reported that the level of experience, effectiveness, and training of managers directly contributed to the success ratings of the programs in the study. Successful managers appeared to be experienced, effective, well-educated, and show high levels of personal achievement. Reinsch (1999) explained that interpersonal factors can make or break a telecommuting project. He found that employees want managers who share negative information promptly, who react to negative feedback constructively, and who display a high degree of loyalty to subordinates. Klayton (1994) explained that managers used the same methods of performance appraisal as in-office employees and held performance reviews at the same frequency. Even though additional management studies are available for future review, it is common knowledge among teleworking researchers and practitioners that more sound research is needed in this area.

Recommendations for HRD

Academic research has not provided enough rich theoretical and empirical support for the planning and implementation of telework in organizations (Shin, 1997). As with many other HRD interventions, theory, problem statements, and research questions are being developed after observing and experiencing trial and error in the workplace. The information presented in this review can be used as broad guidelines for consideration by HRD practitioners who are assessing and designing customized telework programs for organizations. Each telework situation is influenced by many factors (e.g., organizational culture, the type of work being done, the skills and unique situation experienced by each employee, management). If designed, implemented and managed effectively, teleworking programs can be successful and can reap numerous benefits (see Figure 1). There are, however, individual and organizational challenges that should be considered. Analyzing these benefits, challenges, and their implications for each company can help provide a well-rounded assessment of predicted invention success.

Recommendations for HRD practitioners in working with teleworking interventions include the following: 1) be prepared to design new approaches to evaluate, educate, organize, and inform workers; 2) access and include intervention elements related to: formal guidelines and policies, infrastructure (technical tools, training), job design, availability, communication, task scheduling, meeting scheduling, performance measurement, suitability of work, non-teleworker buy-in, cultural change, and more; 3) because managing remotely requires new skills and attitudes on the parts of both managers and employees, design appropriate training and development interventions; 4) assist managers in designing an appropriate amount of social interaction required to maintain effectiveness and reduce unanticipated problems; 5) train workers to adapt to a new environment and cope with the challenges it poses; 6) design or utilize existing assessment instruments and procedures that can assist companies ensuring that workers and managers can be successful in this new relationship; 7) train managers to monitor telecommuting programs carefully and react in an expedient manner to correct any undesirable consequences; and 8) ensure that any telework intervention is first supported by top management and then strategically aligned with the organization's goals and objectives.

Figure 1. Possible Advantages and Challenges for Organizations and Employees.

ADVANTAGES FOR ORGANIZATIONS	ADVANTAGES FOR INDIVIDUALS
Adherence to government regulations Improved employee recruitment Improved employee retention Improved productivity Improved quality Improved satisfaction Increased morale Increased organizational commitment Opportunities for better service Promoted diversity Reduced absenteeism Reduced expenses Reduced office space requirements	Avoidance of office politics Better work/family balance Can work with disabilities/health problems Child care issues less stressful Flexibility to relocate Improved morale Improved productivity Improved quality of life and work life Increased autonomy Increased family and leisure time Increased job satisfaction Increased technical skills Less distractions Less spillover Lower stress level More community ties More flexibility Reduced commute time Saves money on gas and parking
CHALLENGES FOR ORGANIZATIONS	CHALLENGES FOR INDIVIDUALS
Alignment with organization goals and mission Attitudes of in-office employees Career promotions Clear common aims and procedures Communication concerns Compensation and benefit packages Consistent policies and contracts Coordinating work Corporate buy-in Creating synergy Disruptions in work teams Employee accountability Initial financial investment Management control and trust Management and staff training Measuring productivity Organizational culture Redesign of processes Reduced informal mentoring Reduced networking Security issues Technical support Thorough organizational and individual assessment Union concerns Unrealistic expectations	Accessibility to others Career development and promotions Development of interpersonal skills Handling expenses Interruptions from home Intrinsic motivation Isolation and social satisfaction Lack of management or improper management Reduced informal communication Reduced informal mentoring Reduced informal training and development Reduced social networking Remaining "visible" Self-efficacy Shared work space in office Tendency to work more hours Unrealistic expectations Work space in remote locations Work/personal time blurred

This literature review has provided information that can be helpful for HRD professionals interested in pursuing teleworking interventions. Because many elements of telework are different from the traditional work setting, many unique variables need to be considered. This review was also designed to introduce telework as an important and meaningful area for future HRD research. It is clear that current and expected advances in telecommunications technology will facilitate a continued increase in the number of teleworkers throughout the world. Thompson et al., (1999) purported that

> Teleworking may yield many substantial advantages to organizations and individuals, and that the widespread adoption of teleworking may produce significant economic, environmental and societal benefits. Teleworking has great potential in improving the living and working status of employees as well as allowing organizations to increase their efficiency and competitive advantage. (p. 46)

If designed and implemented effectively, telework benefits do outweigh the challenges and problems that employees and employers may confront. HRD practitioners should be at the forefront of teleworking interventions in the workplace. As growth in telework accelerates, organizations will face exciting new changes and challenges. HRD researchers and practitioners should be prepared to meet and accept these challenges. Teleworking can be effective in improving both individual and organizational performance.

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A Study of e-Learning Practices in Selected Fortune 100 Companies

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Recent advancements in technology and the transformation of traditional corporations have sparked the integration of technology and learning in the private sector. This survey-based study examined why seven Fortune 100 companies have introduced e-Learning to their employees and the issues and barriers that resulted.

Key words: E-Learning, Technology, Corporate

The concept of the learning organization (Watkins & Marsick, 1993) has grown exponentially with the technological era. Mcrea, Gay & Bacon (2000) related that today, corporate learning and the corporate learning organization have ascended to a position of strategic prominence in the context of managing and growing the enterprise. Urdan & Weggen (2000) identified the knowledge-based economy, the paradigm shift in the way education is viewed and delivered, and huge knowledge gaps as significant trends that have given rise to e-Learning. In addition, they mentioned that the second largest sector of the U.S economy is $772 billion education industry, and the increase in complexity and velocity of the work environment brought about by technological changes are also major issues that have fueled e-Learning. Mcrea, Gay & Bacon (2000) presented the shift from the industrial to the knowledge era, rapid technological change, the ever shortening product developmental cycles, lack of skilled personnel, enterprise resource planning implementations, and migration towards a value chain integration and the extended enterprise as being prominent contributors to e-Learning growth. Mcrea, Gay and Bacon (2000) also recognized the robust economy and the increasingly competitive global business environment as central to the e-Learning movement. Ticoll, Lowy & Kalakota (1998) related that the competitive environment requires companies to work together to create online networks of customers, suppliers, and value-added processes – that is, an e-business community (EBC).

The trends discussed above have given birth to several business issues that need to be quickly addressed if companies are to retain their competitive edge. Furthermore, the literature shows that as companies digitally transform their businesses, knowledge and training become rapidly obsolete, just-in-time training becomes a basic survival need, and identification of cost-effective ways of reaching diverse global workforce becomes critical (Urgan & Weggen, 2000). Additionally, new learning models are needed given the skills gap and demographic changes, and flexible access to lifelong learning is highly desired. Stated differently, the use of e-Learning within an operating entity forces organizations to change the traditional learning paradigm. To coincide with this change, new strategies for managing and developing their employees are a must. Companies who do not react in such a manner or fail to use the technology to their advantage may find themselves losing to their competitors. In contrast, for those companies who do capitalize on this change, will have the potential to build and develop a workforce that performs at rates higher than their current workforce; in turn, reaping benefits that enhance their organization's bottom line.

Purpose of the Study and Research Questions

The purpose of this study was to provide an external perspective to the development and delivery of e-Learning activities within the private sector. To achieve this purpose, the study examined the events that propelled the implementation of e-Learning within the corporate sector, in addition to the frequent issues and barriers that existed as a direct result. A series of six research questions drove the data collection, analysis and reporting of the results, they include: 1) What is the source of motivation for companies to use e-Learning in corporate training? 2) What are

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the company based events that led to distributed corporate training? 3) What is the current status of development and implementation of e-Learning? 4) How is e-Learning evaluated within the companies? 5) To what extent have companies adopted e-Learning in their international locations? 6) What are the future directions of distributed corporate training within the companies?

Method

General Approach. The current study employed semi-structured phone interviews to gather the research data. This method included the identification of seven industrial partners at the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign who had e-Learning activity underway; the identification of appropriate respondents from each company; and the engagement of individuals in an extended phone interview.

The company participants were from a variety of industries including: retail, manufacturing, technology, oil, and insurance.

Sample. A convenience sample of twenty-one individuals was studied. All participants were Managers or Directors for a specific training department, the Human Resources department within their company, or their company's Corporate University. These respondents were specifically chosen because they were identified by their company's NCSA liaison and/or by a NCSA staff member who had worked with the partner companies and thus, was familiar with the employees' area of expertise. In addition, once a selected respondent was interviewed, participants were asked to suggest a colleague that, ideally, would have a longer or different perspective on e-Learning within the organization.

Instrument. NCSA's team, based on input from three company representatives, developed an interview protocol. Questions were developed around the 6 research questions presented above. Beta-tests were conducted in December 1999 and completed in January 2000 with three company respondents. Revisions were made according to interviewees' suggestions and feedback. The resulting interview instrument was six pages long and included a series of sub-questions or probes for each of the six broad research questions.

Data Collection Procedure. Nominated respondents were contacted by email to invite them to participate in the study. The email included a detailed explanation of the project's purpose and an indication of the time commitment required for participation. Email communication continued until an interview was scheduled.

The Principal Investigator conducted each telephone interview. To ensure consistency in questioning and probing, the Co-Pi listened to several of the interviews.

The phone interviews were all recorded to facilitate analysis. The interviews began in February 2000 and were completed by April 2000. The average interview length was 55 minutes long. After each interview a thank you e-mail was sent to the participant. In cases where additional information was needed (sometimes realized during the analysis stage) an e-mail was sent to specific respondents for additional information or clarification.

Analysis Method. The analysis included a summary of each interview and a cross interview analysis. This analysis began with the recorded interview being transcribed verbatim. Then, the verbatim transcripts were analyzed by reviewing all information that pertained to a specific research question. The results of the analysis were summarized in tabular format when appropriate and in the recording of key points where quantification was not possible.

The small sample size of the current study does not enable the results to be generalized across all Fortune 100 Companies. Nonetheless, these results can intrigue companies that are debating to introduce e-Learning to their employees. Furthermore, for those companies who have already implemented e-Learning, such companies can use this study to benchmark their progress and to learn from this sample's own progression.

Company Motivation for e-Learning

Respondents were asked to provide information regarding the motivation or rationale for their unit or company becoming involved in e-Learning activities. Not all of the survey participants were part of their organization during the initial adoption of an e-Learning medium. Of the 15 participants who were employed by their respective company at that time, each interviewee's answer fits into one of the following four categories of motivation: Accessibility, Training Need, Training Expenses, and Employee Preference.

Accessibility. At least one person from all of the seven participating companies (100%) indicated they were attracted to e-Learning because their employees could have immediate access to the learning tool. In other words, their employees did not have to commit more time to training than their workload allowed, nor did corporate trainers have to spend valuable time traveling to disparate locations. From the respondents' perspective, such opportunities were appealing. They noted that e-Learning enabled them to reduce the amount of training time demanded from shift workers and a geographically dispersed population. In addition, a respondent specifically noted that e-Learning eliminated potential inconveniences that may occur with the delivery of classroom-based training (i.e. cancelled training courses).

Business Need. At least one employee from four of the seven sampled companies (57%) viewed web-based technology as a means to achieving a business objective. The business objectives varied across industries. Respondents from two companies viewed e-Learning as a new and better way, in the sense of saving both training costs and time, to meet mandates set by OSHA and other regulatory agencies. On the other hand, respondents from two other companies viewed the medium as a more effective and efficient way to communicate with their sales and marketing departments. From these respondents' perspective, the fact that product information is anything but stable enhanced the attractiveness of web-based technology.

Training Expenses. Respondents from four companies (57%) were interested in e-Learning for the opportunity to minimize training costs. In fact, by avoiding travel expenses, room rentals, and the cost of food, a respondent from one organization noted they could deliver online training at about 60% of the cost of classroom-based training.

Employee Preference. Participants from two (28.5%) of the sampled organizations reported that their organizations adopted e-Learning to appeal to their employees. The companies could leverage off the learners' level of comfort with computers, as well as be more sensitive to employee time constraints.

Current Status of e-Learning courses

To begin assessing the status of online learning at each corporation, respondents were asked to estimate the percentage of their training budget that is invested in corporate e-Learning. As noted previously, because of different areas of expertise and years of experience within the company, participants provided their best estimations. As shown in Table 1, the business departments of the various companies differ in their investment of e-Learning from 5-50%.

Table 1. Percentage of Company Training Budget Invested in e-Learning

Company	A	B	C	D	E	F	G
	Corporate Enterprise, Very small, could not give %	15% 10%	10-15%	15% 2%	20% 10% 25%	50%	5%

Course Content. Table 2 identifies the number of courses that the participants' departments and companies have delivered outside of a traditional, instructor led classroom.

Examining the 30 different course topics listed above, it becomes apparent that companies are primarily offering performance improvement courses. These give employees the opportunity to improve their performance on the job either directly or indirectly. In contrast, selected departments within the sample are providing information that might not only enhance employee performance but is in fact needed to perform the primary role in the organization. Table 2 also shows that there is only one company from this sampled who identified online courses that have a soft skill focus.

Development of e-Learning Courses. The sampled companies vary from 25-100% in developing their courses in-house. As shown in Table 3 there was also varying levels of the educational requirements that the departments of the interviewees demand of their instructional designers. Among the five companies that provided this information, the range extends from no educational requirements to requiring a Master's Degree.

Table 2. E-Learning Courses Offered Within The Interviewees' Company or Particular Department

Company	Course Offerings
A	Course content is across the board: contract language, financial basics, meeting OSHA and EPS requirements Other courses topics: How do I run a pump? How do I keep myself safe when entering a vessel? How do I use a fire extinguisher? LearnLinc technology is used to train employees on a basic end-user software program
B	Online Microsoft Office suite programs and courses on leadership training Tutorials on: introduction to online courses, bodily injury evaluation, and interpersonal skills (i.e. people skills, customer service, negotiating)
C	Online programs to train employees SAP software programs that will take the organization from 2,500 different but integrated systems, to one primary system Worldwide Web product training
D	Online courses targeted for the Engineering population
E	28 online training modules, including courses on print reading, business law, systems engineering, company custom software (i.e. quality and reliability workbench) 250 online classes via the WWW Internet for the IT community: Microsoft Office, Java Programming, Lotus Notes, Cisco Routers
F	1,000 online courses that can be transferred to the desktop or taken remotely Online training for first time managers 600 titles of computer based instruction for engineers and IT professionals that can be accessed anywhere in the world
G	Online campus provides over 200 courses and each operating entity provides online courses. (i.e.) the IT Department has courses on Microsoft Office and Lotus Notes the Service Department is converting 100 of their print courses to the Web Online product training An online Human Resources core curriculum will be distributed in the year 2,000

In addition to the above data, one participant specifically noted that his organization could not utilize external vendors. The argument was the following, "most instructional designers have been brought up around how you deliver manuals; yet, instructional design on the web is about ease of use and about incorporating all learning preferences, while keeping it simple." From the interviewee's perspective, "these are two different groups of people that would do that and it is very hard to find them today, since they have not been produced."

Length of Distributed Learning Courses. From this sample, the average length of non-traditional courses within the seven companies is two hours long. The courses are divided into modules that vary in length from 10-30 minutes. One respondent noted the length of the modules is dependent on the demographics of the end users. For instance, the company has created 10-minute modules for the print reading courses, versus 30-minute modules for the engineering courses.

Use of Multi-Media. Company respondents were asked to describe the extent of multimedia used in their non-traditional courses. Respondents from three companies revealed that their organization's inclusion of multimedia is not a 'free' choice, but rather is a choice dictated by the company's infrastructure. Therefore, e-Learning courses accessible in non-U.S. locations exclude audio and streaming video because of bandwidth limitations. To compensate for this absence, one company requires the employees to solve problems after every 400-500 words. Online quizzes and direct comparisons of the learner's typed in answer to an instructor's opinion are also included. In contrast, one company's Intranet courses, targeted for its engineers and accessible in every country but Antarctica, are described as page-turners; including text and graphics only.

Different than the examples immediately above, one participant's department has been able to take advantage of technology and include full motion video, audio effects, and animation in their online courses that are distributed throughout the United States. This enables the online courses to be very close to reality when they model behavior. Moreover, the designers of these courses are sensitive to more than simply gender and race, as they have also integrated diversity into modeling behavior (i.e. various dialects). Humor is also included.

Communication Modes/Interactivity Features. Respondents were asked to identify the percentage of asynchronous vs. synchronous communications as well as any design feature(s) that enable(s) employees to interact with each other and/or with a course instructor or a member of management. In this sample, all e-Learning courses,

Table 3. Educational Requirements for Instructional Distributed Learning Designers

Educational Requirements
Master's Level Certification of Special Design, learning principles and theories, emphasis on organizational development
Minimum requirement is a Master's in Education or Learning and has experience with multi-media online training
No educational requirements
The Writers usually have an Associate or Bachelor's degree and they are selected from the work environment because they are subject matter experts and have demonstrated very good writing skills and good communication skills. Developers are responsible for the narrower pieces, training for a particular job area like online customer service. These individuals are responsible for the design work, writing objectives, designing the test instruments.
Instructors and developers are subject matter experts from the field technical resources. The SMEs that are selected are required to complete instructional design courses and they become certified in instructional design.

with the exception to one, have asynchronous communication modes. Even the one course is only 5% synchronous. Specifically, the course has chat lines to the executive team, yet no chat lines to enable team-based learning. Therefore, in this study's sample, the capability for employees to interact in real time is nearly non-existent.

Moreover, the data shows there is even minimal opportunity for the end users to engage in communications with one another offline. Table 4 summarizes the communication mechanisms the sampled companies are including in their e-Learning courses and emphasizes the absence of technical features that encourage team-based learning. With the exception of the ability to contact subject matter experts, there is a lack of capability for colleagues to share information that could supplement the online courses' teachings.

Table 4. Inclusions of Interaction Features

Online management course includes the option for its learners to access subject matter experts via email
Five of 27 e-Learning courses have employed a system where an individual is videotaped and a manager scores the employees' performance.
Courses are all self-study
Simulation type courses enables the end users to connect to a help desk immediately by phone to have their questions answered immediately or to be connected to someone who can provide help
Ability to send comments and ask questions throughout the training, using either email or "contact us" buttons
LearnLinc: synchronous virtual classroom

The data collected above reveal that the majority of the sample is taking advantage of e-Learning in the sense of forgoing the need to schedule times for employees to interact. This is particularly interesting since the trend in online learning in universities is moving toward more collaborative environments and synchronous communication.

In contrast to the overwhelmingly majority of the e-Learning courses in this sample that are devoid of end user communications, one company has deliberately chosen to use a technology that supports synchronous communications. The company is using LearnLinc, a synchronous virtual classroom to teach employees a basic end-user software program. Because of the corporate culture, the Learning Consultant believed this was the most appropriate choice: "Based on what I have seen in this culture, people are very attuned to face-to-face training. The employees like the touch and feel of coming to a training class and having that interpersonal communication. With computer based training, whether it does provide it or not, there *is* a perception with our customers that it does not provide that [the interpersonal communication] and this negative perception is all it takes." This direct quote does more than simply indicate to the reader the influence corporate culture will have on employee acceptance of e-Learning. The comment also suggests that employees might have misperceptions of e-Learning. Another interviewee even noted "the downside of non-traditional learning is employees seeing it as a 'cheap' substitute for what use to be a nice perk." Such findings indicate that it would be to a company's advantage to distribute mass emails or brochures, or to arrange face-to-face meetings to correctly inform their employees about e-Learning. An organization's proactive involvement may eradicate misperceptions and prevent employees from misconstruing the benefits of these new learning tools.

Evaluation of e-Learning

Respondents were asked to indicate how they evaluate their e-Learning courses and to describe the results of such assessments. The interviewer did not explicitly ask that the answers be stated according to Kirkpatrick's four levels of evaluations; however, many of the beginning interviewees provided an answer that in fact was in accordance with this model of evaluation. Therefore, for ease of data analysis, the interviewer probed other interviewees to respond in a similar manner.

Companies are not implementing e-Learning courses without integrating some type of evaluation tool. As these tools differ in regards to the type of information they gather, each company has used a minimum of two evaluation assessments.

Level One. Interviewees from five companies (71%) have distributed at least one formal attitude survey to employee users of non-traditional learning mediums. The results of these surveys indicate that the majority of employees are generally positive about the new learning tool. However, the feedback also indicated that the employees are having difficulty committing time to desktop training and even when they do they are often interrupted by the phone or colleagues. One respondent shared that the biggest complaint given by his employees is focused on the complexity of setting themselves up to use computer based training.

These results suggests that for organizations to be more successful in their implementation of non-traditional training, they should or may want to consider being sensitive to their employees' time constraints. More specifically, it may be to an organization's advantage to initially create an e-Learning laboratory where employees have immediate access to a technology help desk. By following such a suggestion, a company would incur only minimal expenses and yet be able to easily encourage their employees to experiment with the new technology. A positive first experience with the tool may minimize the employees' opposition to accept e-Learning.

Level Two. In addition to simply measuring the employees' reactions to these training tools, employers have incorporated pre and posttests into their e-Learning courses. Perhaps it is no surprise that all the participating companies (100%) are using pre and post assessments. One of the primary goals of any training or learning course, despite its design, is to ensure that employees have retained novel information.

As the sample companies are in different stages in their initiative toward corporate e-Learning, not all participants have calculated their learning gains from their e-Learning medium. In one company, they have determined that on average, the learning gain from an e-Learning medium has ranged from 18.5%-41.65%.

Level Three. If retaining new information is one of the two primary goals of e-Learning courses, than being able to apply this information is the second goal (level three evaluation). Respondents from one company (14%) reported that they commit time to this particular type of assessment. The respondents also reported that a level three assessment occurs in two of the firm's departments where it is relatively easy to measure an employee's performance both prior to and after the delivery of a training course. Hence, these departments have the opportunity to verify that there was or was not transfer of training to the job.

Level Four. Participants from two companies (28.5%) have calculated a Return on Investment (ROI) for the adoption of an e-Learning medium. The interviewees' comments that supplemented this information are very interesting.

While one company has taken the time to calculate a ROI, because the process consumes many resources, the company has lessened its initiatives towards deriving this number. More recently, the company has had some renewed interest in calculating the ROI; yet, they continue to rely primarily on user feedback .

Another company has also calculated a ROI and has seen a return on investment for approximately two million dollars. Regardless of this significant return calculation, the company argues that the other benefits that the company has gained maybe even more significant. For example, the company is much more consistent in what they do today and thus, are not inadvertently violating any legal requirements from a compliance perspective. In addition, because of the combination of the e-Learning course and the similar technology employees are using on the job, the employees' level of job satisfaction has increased; hence, the department has experienced a lower turnover rate.

Global Distributed Learning

The data collected indicated that five (71.4%) of the seven sampled companies give their non-U.S. locations access to e-Learning courses. Respondents from three of the companies have translated their courses in at least one other language, while the other two companies have not. One interviewee argued that there is certainly the need to offer training in other languages; yet, solely from a business perspective, translating the courses may not make much strategic sense, since English is such a common language. Nonetheless, the individual also asserted the importance of providing not only a verbal translation for the international employees, but also a cultural translation. Beyond conquering language and learning style barriers, when providing global e-Learning courses, a major barrier is infrastructure. The discussions on this issue can be summarized in the following quote: "technology allows you to do a lot of neat things, but it is the infrastructure of your company that may stop that."

Another potential barrier in global e-Learning is a result of the multiple regulations enforced in each country. In some countries, such as Germany, it is not possible to export information on people (i.e. results of a skill assessment), outside of the country without prior documentation approval. The consequences can be as minor as a fine or as serious as a prison sentence.

Even if companies overcome the barriers that the interviewees noted above, companies are still challenged with gaining the international employees' acceptance of e-Learning tools. Because international e-Learning courses are not extensive throughout the sampled companies, this study will not be able to fully address this issue; however, any noted experiences are important, as they may be able to guide future research. Table 5 includes the feedback from the companies.

Table 5. Participant Responses on International Acceptance of e-Learning

"We have found that the people over there [England, Brazil, Belgium, Switzerland, France, China] are much more receptive. It is my own perspective that this is because what has been ingrained in these cultures is the concept of being told what to do, be expected to do it, and so, they do it. Conversely, in America we have the tendency to be told what to do, but yet we are able to modify those expectations and possibly even avoid the task."
"In our experiences, Europeans, particularly in France, really prefer to have training face-to-face. I don't think they so much object to training online, but it is the absence of the classroom that they most resist. On the other hand, China is requesting that our training for SA P is woven into our e-Learning initiative."
"I think you can make generalities about the younger workforce in China. They are extremely computer literate and would readily accept and embrace this type of training, but certainly the older workforce in the manufacturing plants is going to be a big problem. Furthermore, many cultures in Europe, especially the French, expect to be taught by an expert. So the idea of self-directed learning is expected to be an issue."
"When you say that the French want more classroom based environments, the same holds true within the U.S.; but again, it is how the organization and the culture within that organization supports how you can use online or e-Learning for some things and how the classroom can be used for others. Just from basic human nature, I think many people still want the classroom, the question is how do you help people understand the value of e-Learning compared to a classroom environment and understand the business requirements behind that? There is just basic business reality that says life is changing so quickly that yes we would all like to have that classroom intervention, but there is just not a lot of time for it for every single thing that we do in an organization."
"They don't like it because they don't know what it is. The degree of acceptance is different for each country. For example, people from countries such as the United Kingdom, Sweden, and Norway can learn easily from CD-ROMs. However, people in France, Spain, Italy, Greece, the Middle East, and even in Eastern Europe typically prefer to learn with a professor that will lecture and conclude with questions."

The data in Table 5 is from individuals working within the United States, excluding the last comment. The last comment is from an individual employed in Paris, France, and thus, is perhaps closest to the issue of global e-Learning. Moreover, his comments emphasize the challenge in gaining cross-cultural acceptance of non-traditional training, as he points out the diverse learning styles of international employees.

Future of e-Learning

Participants were asked to discuss their vision of e-Learning at their company within the next three years. Table 6 shows the percent increase in the use of e-Learning that was provided by the respondents.

What Table 6 is not able to show is that the majority of the respondents believe that this increase will be the result of using e-Learning as a supplement, particularly prior to, traditional classroom training. They believe that using the medium in this manner will provide several advantages. These include: enabling new hires with varying levels of skills and education to be equally prepared for classroom instruction; enhancing traditional training by allowing the instructor to focus on application of materials specifically within the corporate culture; and not depriving employees of social interactions between an instructor and amongst their coworkers. Companies are still not convinced that everything should be solely online (i.e. soft skill course).

Table 6. Percentage of Distributed Learning Use in the Year 2003

Company	A	B	C	D	E	F	G
	70-80%	15% 30%	5-10%	100% 25% 50%	30%	40% 75% 70-80%	30%

Conclusions

This study investigated the utilization of e-Learning within seven Fortune 100 Companies. Specifically, the findings revealed that each company was motivated towards a non-traditional learning tool to be able to give their employees immediate access to pertinent information, particularly without any inconveniences of traveling or cancelled classes. Interestingly, the findings also show inconsistent educational requirements that the sampled companies expect that their in-house, online developers hold. Independent of the course designers' level of education, the data indicated that the non-traditional courses in this study's sample do not enable employees to interact in real time. Furthermore, as shown in Table 4, the findings showed that the asynchronous communication tools that do exist encourage offline communications between the end user and a course designer and/or a subject matter expert; yet, no mechanisms, (i.e. web board) are in place to encourage course users to facilitate information between one another offline. Boshier et. al.'s (1997) survey of adult web-based courses, showed that this lack of learner interaction is not atypical.

Nonetheless, other literature shows that collaborative learning techniques driven by course content and the process of informal techniques established by end users and enhanced by collaborative technologies are excellent mediums for interaction and communication. Soo & Bonk (1998) in asking experts to rank types of interactions found that asynchronous learner-learner interaction was rated the most important type of interaction. Soo & Bonk, however, also noted that technology seems to be the factor that both enables and constrains the learning we want to instill in online environments. Therefore, while the luxury of e-Learning allows employees to take a self-study course, the lack of asynchronous interaction between end users inhibits the sharing of knowledge and hence, does not incorporate the full potential of e-Learning. Interestingly, this study's findings indicated that the absence of learner interaction and minimum multimedia were not important for self-paced courses. These results suggest that more studies are needed to understand how a learner's initial perceptions of the course, experience with technology, and profession can influence acceptance of e-Learning.

Finally, this study's results showed that companies do foresee a greater use of e-Learning within the near future. More specifically, they believe that a hybrid approach is the most optimal way to use the new learning tools. Using technology to provide the foundational information, and then the classroom for application of material within the context of their corporate culture, companies are confident e-Learning will give them the opportunity to gain a competitive advantage.

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Human Resource Development for International Technology Transfer within Multinational Enterprises in Singapore

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MNEs are key players in the international transfer of technology from corporate HQ to its subsidiaries, or among its subsidiaries located in various parts of the world. In this regard HRD was found to play significant role in improving the effectiveness of technology transfer. But, very little research has been conducted to investigate this phenomenon. This paper presents some empirical information on the status of international technology transfer, and the HRD practices used in the transfer process.

Keywords: International Technology Transfer, HRD, Singapore

Organizations have to maintain the technological edge needed for their survival and growth in today's competitive global business environment. This can be accomplished either through technological innovation or through technological acquisition and adaptation. The innovated or acquired technology is then transferred to different units of the organization, located at different geographical locations of the world. The technology transfer, implementation, and use phenomena are crucial for total organizational success of multinational enterprises (MNEs). MNEs are especially noted for their involvement in the international transfer of capital, goods and technology from headquarters (HQ) to subsidiaries or among the subsidiaries.

Technology has been categorized into different types, and various nomenclatures have been used in this regard based on the research interests of the different scholars. Technology may be classified broadly into three types: Product, Process, and Management. Product technology is the set of ideas embodied in the product itself, process technology is the set of ideas involved in the manufacture of the product, or the sequential steps and decisions necessary to combine/process the materials to produce a finished product. Management technology is the set of management procedures associated with selling the product, or the ways in which managers organize their work systems to make best use of human resources for accomplishing organizational goals. For effective transfer and use of any type of technology, management technology acts as an indispensable catalytic agent in the transfer of product and process technologies. In this regard, human resource development (HRD) plays significant role for improving the effectiveness of any type of technology transfer in achieving the desired organizational objectives (Wallender, 1979; Negandhi, 1981; Mascarenhas, 1982; Sahal, 1982; Stobaugh & Walls, 1984; Deihl, 1987; Capon & Glazer, 1987; Von Gilnow & Teagarden, 1988; Osman-Gani, 1991; 1999).

Research Problem

The transfer of technology has increased in complexity as various types of technologies are transferred across different geographical locations through several mechanisms. These technologies are more difficult to transfer because they contain a higher content of tacit knowledge that is context-specific. The context can refer to the distinctive culture and domestic conditions which the transferor and transferee face as they interact with each other. These interactions often encounter difficulties, and HRD is proposed by scholars as a means of facilitating more effective interaction while transferring technology internationally (Black and Mendenhall, 1989; Osman-Gani, 1999). Although much research has been done on international technology transfer (ITT), most of those studies covered economic, financial and technical aspects of the transfer. Very little empirical research is available that investigated the HRD issues related to ITT. Moreover, most of those studies focused on how technology is transferred from developed to less developed countries, as well as among the developed countries in North America and Europe. No study has been found that looked specifically into the HRD issues (such as training & development) for ITT, or provided any empirical information on the status of ITT or HRD practice, particularly in Asia. This paper

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presents some empirical information on the status of ITT in MNEs in Singapore, as well as on the HRD practices, such as training and development.

Review of Literature/Theoretical Framework

Technology can be transferred in many ways and for a variety of reasons, but the three most prominent situations are the following: (a) Technology can be transferred within the realms of science and technology themselves, to further the cause of those disciplines; (b) Technology can be transferred within a societal level from one geographical location to another, usually for economic gain; (c) Technology can be transferred from one societal level, both internationally and intranationally, ostensibly for development. By definition a transfer of technology will always result in a change - in process, in product, in power, in attitude, in wants and desires, and/or in situations that are either political, social, economic, or environmental (Pytlik, Lauda, & Johnson, 1985).

Technology transfer can be either vertical or horizontal. Vertical transfer is generally internal to the enterprise and takes place by the incorporation of new knowledge from the idea stage to its final development. Horizontal transfer involves the transfer of proven or tested technology from one industry or country to be adopted, modified or applied in another industry or country (Bradbury, 1978). A further distinction can be made between three phases of horizontal technology transfer: material transfer, design transfer, and capacity transfer (Hayami & Ruttman, 1971).

The first phase is characterized by the importation of new products or materials with no adaptation to the local environment. The second phase of transfer involves the transfer of the capability to manufacture the product domestically, or in the case of process technology, to utilize the process domestically. The third phase involves the transfer of knowledge and the capability to develop new technology (Teece, 1976). The domain of this paper, HRD for technology transfer, is focused more on the horizontal transfer falling into the design and capacity phase as defined above.

MNEs in International Technology Transfer

It has been established that, MNEs are the dominant institutions in transferring technology across national boundaries (Quinn, 1969; Dunning, 1970; Pavitt, 1971; Branson, 1971; Choy, 1983; Rugman, 1983). MNEs transfer product, process, and management technology to their subsidiaries or branches located in different countries at different geographical locations for improving overall organizational performance, and thereby ensuring success and growth. Generally, the source being the MNE headquarters and the destinations being the overseas subsidiaries and affiliates. Each of these organizational units operates within unique socio-cultural, political and economic environments of the specific country concerned. For effective and efficient transfer of technology, the source MNE unit generate policies and procedures that determine the nature of technology to be adopted (or adapted) and transferred. The technology recipient MNE unit(s) adapt and implement those policies and procedures, which determine the acceptance of the transferred technology.

MNEs are noted for the investments that they inject into the host countries in the form of capital goods and skills (Fayerweather, 1982). These foreign investments are instrumental in providing economic development. Vernon (1985) pointed out that diverse governments might try to use multinationals as instruments for projection of their own will. Heller (1985) stated out that the new technological innovations introduced by MNEs bring in new values, but also has the potential to displace old ones.

The mechanisms of technology transfer are as varied as the agents. This variation depends in part upon the type of technology. Among possible mechanisms are foreign direct investment (FDI) by an MNE, which provides the training (or other HRD activity) to provide the skills needed to implement the technology. Licensing by MNEs is also another type of transfer mechanism, which is closely related to FDI. Franchises and trademarks are primarily transfers of reputation or goodwill rather than technology, although they include some transfer of management technology required for quality control, and generally involve some training and technical assistance. Turnkey investments are another mechanism for transferring technology, in which an organization constructs a productive facility, provides necessary training, and then turns over operation entirely to a local firm or other organization. In terms of types of technology transfer, turnkey investments may be limited to operational capability, without the investment and innovation capabilities that are typically associated with direct investment.

Role of HRD in International Technology Transfer

To successfully transfer technology across nations and cultures, one must begin by understanding one's own culture, how it contrasts with host country culture, and the impact of these cultural differences on HRD and other organizational operations. HRD and management policies and procedures must be adapted to that new culture. Finally, personnel must be selected and trained who can effectively implement these modified, culturally sensitive HRD activities. Successful HRD professionals are very conscious of the socio-cultural values as they plan technology transfer, design training programs, and select personnel.

Technology transfer via HRD by foreign business firms takes place in three steps. The first is the recruitment and training of local workers in the skills (primarily managerial and professional) required to master and implement the technology used by the firm. The second step is the advancement of the workers thus trained to positions of greater responsibility as they gain experience, gradually replacing the expatriates who were initially needed both to train them and to perform managerial and professional functions in the firm. The third step, which can occur at every level of technology transfer capability, is the turnover of trained and experienced managerial and technical personnel insofar as they employ their skills in starting new domestic enterprises or in modernizing domestic organizations. The main vehicle of international technology transfer is ultimately the turnover of trained and experienced managerial and professional employees from MNEs to domestic firms/subsidiaries and other domestic organizations. It is conceivable for technology transfer to proceed without such turnover, with the continued expansion of MNEs as a share of industry and the economy (Stewart & Nihei, 1987).

Of all the individual activities related to HRD, countries differ in how they view their work environments, and that these differences can be grouped into clusters of countries (Hofstede, 1984; Ronen & Shenkar, 1985). A substantial amount of this research, conducted from international comparative management and cross-cultural perspectives, supports the assertion that national boundaries and cultural identities also account for certain responses, independent of job level or work group (Trompenaars & Hampden-Turner, 1998).

Managers from different countries have been shown to differ in their perceptions on a variety of issues, and management technology was considered to be one of the most significant issues facing managers, and managers' perceptions of management technology within an MNE also differed. Therefore, it is important to understand these differences especially among managers of MNEs regarding the transfer and use of management technology across national boundaries (Osman-Gani & Jacobs, 1996).

It has been concluded from a study that national differences of managers affect the transfer and use of management technology across national boundaries. In addition, certain demographic characteristics such as experience, gender, and occupation level also influence the transfer phenomena at varied degrees of importance. Following the national differences, it has been further observed that certain pattern of country clusters emerge from the managers perceptions of transferring and using management technology across national boundaries (Osman-Gani, 1991).

Transfer of knowledge. Technology has been closely associated with knowledge (Schmmokler, 1996; Rosenberg, 1982; Knnap, 1987; Jegathesan, 1990). Without the inherent knowledge, technology cannot be applied to solve any task. Hence, it naturally follows that transfer of technology tantamount to transfer of knowledge.

Polanyi (1974) identified two types of knowledge: explicit and tacit knowledge. Explicit knowledge can be easily codified and communicated between different people in systematic ways. Tacit knowledge is the knowledge of experience that is highly context specific, and therefore difficult to formalize and communicate. The value of such tacit knowledge can only be maximized by making it widely available in the organization (Nonaka & Takenchi, 1995). This implies that knowledge must be transferred quickly and efficiently throughout the organization. However, the smoothness of transfer is affected by the degree of tacit content contained in the knowledge (Zander, 1991; Szulanski, 1996).

Knowledge transfer is also affected by factors other than its tacit content. Bresman, Birkinshaw and Nobel (1999) argued that factors such as the frequency of communication between the transferor and transferee, the use of protracted modes of interaction like extended visits and joint training programs and the size of the transferee entity will act to facilitate the process of knowledge transfer. This is consistent with the study done by Dakin and Lindsey (1991) who stated that technology or knowledge can be transferred through the exchange of personnel, responsible for its development, between the supplier and the recipient. Zirger (1997) also emphasized that training provided by knowledge transferor enables the recipients to learn from their vast experience in the field of knowledge inherent in the technology.

International Technology Transfer in Singapore

Being a small country with limited resources and options for growth, Singapore was compelled to adopt a strategy of export-oriented industrialization with heavy reliance on foreign capital and technology (Pasuk, 1990). In this regard HRD was identified as the crucial factor for sustaining its competitiveness and economic development (Osman-Gani & Tan, 1998).

The role that the government plays in international technology transfer cannot be possibly overemphasized. It permits free repatriation of profits and allows foreign ownership in most economic sectors up to 100%. This secures commitment from the MNEs to transfer advanced skills and know how to Singapore .(Tatsuo, 1991). The government also sets up various institutional bodies to facilitate the transfer of technology. Recognizing the importance of learning, the government works towards building a sound system of education and training to develop the human resources in the country. The aim is to increase receptivity to new technologies and the ability to disseminate knowledge and know how (Lee, 1994).

Increased emphasis is now been given on developing creativity and innovation skills, and investments are pouring in the research and development areas. Also, national policy makers and business leaders are emphasizing on technology acquisition and adoption through technology transfer. But, not much research has been done to study the role of HRD in effective transfer of technology. To bridge the research gap, this study attempts to identify the status of technology transfer in MNEs of Singapore, as well as to provide empirical information on the HRD practice in transferring technology.

Research Questions

In order to achieve the objectives of this study, the following research questions were formulated:

1) What mechanisms are used in transferring technologies within MNEs in Singapore?
2) What training and development programs are used in transferring technology within the MNEs?
3) What training delivery methods are used by MNEs in transferring technology?
4) Who are the effective training providers for transferring technology within MNEs in Singapore?

Research Methodology

This descriptive study used an exploratory design for collecting primary data from the MNEs operating in Singapore. Preliminary interviews were conducted on 20 companies selected randomly for gathering first-hand knowledge about ITT, and this was followed by an extensive survey conducted on a sample of managers from various types of MNEs. The population for this study comprises MNEs in the four major industrial sectors, and from five countries of origin. The four industrial sectors are namely: Manufacturing, Financial (banking, insurance and investment), Transportation and Logistics (airlines, shipping, warehousing and courier) as well as Others (telecommunication and engineering services). The different countries of origin are namely: the United States of America, Japan, Germany and France and the United Kingdom. Most of the established MNEs in Singapore were found to operate in the above sectors, and their corporate headquarters are located in the above mentioned countries. The sampling frame for the study was compiled from the five directories of Japanese, American, French, German and British Businesses in 1999. The survey was conducted on a sample size of 600 MNEs, representing the above industrial sectors, where most of the technology transfer was found to occur. A proportionate stratified random sampling procedure was followed in drawing the sample from the sampling frame. The respondents were general managers or HR managers of the selected MNEs.

A questionnaire was designed based on the findings from the interviews and the literature. The questionnaire also includes some validated items from previous instruments identified through the literature review. The questionnaire was subjected to the tests for reliability and validity. The questionnaire was administered to 600 MNE managers through Facsimile system.

Results and Discussions

A total of 105 completed responses were obtained, which were used for subsequent analyses. Among the respondents, 52.5% were from the manufacturing industry, 22.8% from the finance sector, 15.8 from the telecommunications and engineering service sector and 8.9% from the transportation and logistics sectors. The distributions of respondents from MNEs of different countries of origin are: USA (41%), Japan (24%), Germany (15%), UK (13%) and France (7%). Most of these MNEs (70.3%) have employment size of less than 150. About

11% respondent companies employed more than 450 people in their business operations in Singapore. Although more than half of the respondents (52%) were from manufacturing sector, those MNEs were found to operate mostly in high tech capital intensive industries, such as electronics and petro-chemical sectors.

Research Question 1: What mechanisms are used in transferring technology within MNEs in Singapore?

It was found that training and development of employees was the most frequently used (mean = 3.55) mechanism for transferring technology (Table 1). This could be due to the observed need for new knowledge and skills to deal with the transferred technology that require persistent training and skill development (Prayoon, 1991). This issue will be investigated further through subsequent research questions. MNEs were also found to frequently send employees from headquarters to Singapore (mean = 3.27) for facilitating the ITT. The expatriates from the headquarters can help the locals in adapting to the new technological environment through sharing their experiences of advanced knowledge and expertise on the specific aspects of the transferred technology. No significant difference was found among companies from various business sectors or countries of origin in terms of transfer mechanisms used.

Research Question 2: What training programs are used in transferring technology within MNEs in Singapore?

The different training programs mentioned in this respect were: technical training, management/supervisory training and education/awareness training. Among them, technical training was most frequently used (mean = 3.89). This can be due to the state of technical sophistication of technologies transferred, which required special technical knowledge for effective transfer and use. Management/ supervisory training was the least frequently (mean = 3.02) used program. This may be due to the relatively fewer managerial and supervisory level interventions needed in the transfer and implementation process of technology than operational employees who have to come into more direct contact with the day to day operation of the newly transferred technology.

Research Question 3: What training delivery methods are used by MNEs in transferring technology?

On-the-job training (OJT) was found to be most frequently used (mean = 4.11) training delivery method for transferring technology compared to several other methods. OJT provides the trainees with the maximum exposure to learning under real life operating environment. This is consistent with findings from other related studies (Osman-Gani & Jacobs, 2000). Other training delivery methods included for respondents' relative rating of use were: audio-visuals, self-instructional materials, computer-based training and tertiary courses. However, these methods were found to be less frequently used (all means < 3) in the technology transfer process Technology transfer involves transferring new advanced skills and know-how where effective learning effectively takes place through mere visuals or written instructions alone.

In analyzing the differences among companies from various business sectors, significant differences were found in terms of using the OJT, seminars and workshops and audio-visual aids as training delivery methods for ITT. OJT was most frequently used by MNEs from the manufacturing sector (mean = 4.33), while MNEs from the transportation and logistics sector used it less frequently (mean = 3.33). This can be due to the frequent movement of employees/trainees from their job sites in the latter sector as they carry out their freight delivery duties. On the other hand, employees of MNEs from the manufacturing sector, are permanently positioned at the production job sites where supervisors can provide training steadily and offer more constant attention (Broadwell, 1986).

Seminars and workshops were most frequently used by MNEs from the telecommunication and engineering service sector (mean = 3.69) while those from the Transportation and Logistics sector use it least frequently (mean=2.67). Seminars and workshops are highly adaptable to convey a broad spectrum of fast changing ideas to many people at a time (Munson, 1984), which suits the fast pace of changes and developments in the telecommunications sector. In contrast, employees from the transportation sector can be absent from home base for substantial period at varying times of the year (Harper, 1982), which makes it difficult to organize seminars where all can attend in a location at one point of time.

Audio-visual aids were most frequently used by the MNEs from telecommunication and engineering services sector (mean = 3.67) while those from the finance sector used it least frequently (mean = 2.63). This can be because visual aids are useful tools for stimulating interests of engineers and technicians in the telecommunications industry towards the field of business knowledge, which needs to be integrated within the businesses itself (Vargo & Hunt, 1996; Pinnington, 1992).

In studying differences among companies from various countries of origin, significant differences were observed in using the classroom training and lectures as a training delivery method (Table 2). This method is most frequently adopted by American MNEs (mean = 3.55), while Japanese MNEs use it least frequently (mean = 2.17).

Classroom training setting was found to enable American trainees to exercise self-reliance and individual learning through interactions in line with their individualistic culture. Conversely, it is not conducive for the Japanese who prefer group learning process (Elashmawi, 1998).

Research Question 4: Who are the effective training providers for transferring technology within MNEs in Singapore?

Expatriates professionals were found to be most frequently used training providers (mean = 3.37), compared to various other personnel, for ITT. This is consistent with the earlier findings on the mechanisms of transferring technology. This was explained considering the expert knowledge possessed by the expatriates from the headquarters, where the technology was most often innovated or acquired, and the decisions are taken for its transfer to overseas subsidiaries. Departmental managers and in-house training consultants were also used for such training but with relatively less frequency. Other training providers such as external consultants and academic professionals were not found to provide ITT training as frequently (mean = 2.24 and 1.83 respectively). This may be because they are costly to engage and they may lack the contextual knowledge of organizational culture and updated information about the industry and the competition. The confidentiality and exclusivity of the information about the new and transferred technology could also be the concerns in this regard.

Conclusions and Recommendations

Based on the findings of this study, it may be concluded that management technology has not been given as much importance compared to the process and product technologies in international transfer of technology across national boundaries. This can be attributed to the fact that management technology contains a high content of tacit knowledge which render its transfer to be more difficult, and also its importance was not often recognized by the top management (Alange, Jacobsson & Jarnehammer, 1998). The strategy of training and skill development can enhance the long run capabilities of employees in the firm. This will sharpen the competitive edge of MNEs as employees acquire valuable knowledge needed for the success of technology transfer. MNEs should emphasize more on technical training and on-the-job training (OJT) programs for ITT. OJT enhances experiential learning and allows trainees ample scope for clarifying issues relating to the technology with their supervisors.

After an exhaustive analysis of the responses received from various MNEs in Singapore, the following recommendations may be proposed for MNE managers for their improved decision making in ITT, as well as to the HRD scholars for future research. Top management of both the transferring and the recipient organizations should exercise strong commitment towards the technology transfer process. Lack of such commitment may lead to ineffective transfer of technology resulting in considerable loss of organizations' resources. More comprehensive technical training programs should be developed, where employees can be trained at different stages of the technology transfer process. This would increase their "breadth" of knowledge and skills required for the transfer of new technology. More training should be conducted at local sites, as this would provide the scope for clarifying relevant issues of the transferred technology against local requirements. A well-structured on-the-job training system should be established. It will internalize among the employees a sense of values, culture or ways that is hard to reproduce in manuals. This requires a team of proficient trainers and supervisors to monitor the performance of the trainees. The guidance provided by their supervisors can ensure that they learn the right methods at all times. Eventually, they will be more effective in applying the transferred technology. MNEs should rotate parent company personnel (expatriates) to work at the overseas subsidiaries. Similarly, the subsidiaries' managers should also be rotated to work at the parent company for a period of time. This will allow executives from both the parent HQ and the subsidiaries to gain valuable cross-cultural experience.

Future research may be conducted to measure the impact of management technology on the successful transfer of process and product technology. This will provide valuable insight for managers to consider to what extent management technology can serve as a catalytic agent in the transfer of the other two types of technologies. This study focused only on Singapore, similar comparative studies should be done in other ASEAN countries like Malaysia and Thailand, to determine if there are significant differences in transferring technology to different countries of destination in the region. This will contribute to building a comprehensive pool of knowledge for better understanding the transfer of technology in the ASEAN region and in Asia in the future. It has been highlighted in the literature that career development affects employee's willingness to learn and their motivational levels to strive towards proficiency in applying the transferred technology (Kung, 1994). Hence, future research may be conducted to explore the impact of career development on technology transfer. Furthermore, other human resource issues like selection, recruitment and compensation could be studied in future to identify their impacts on HRD issues in respect of international technology transfer. Empirical results from this study might provide useful insights as a stepping stone in designing and conducting future research in this area.

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Table 1: Analysis of Variance on the Types of Technology Transfer Mechanisms by Country of Origin

Types of Transfer Mechanism	USA			Germany			France			Japan			UK			F	Sig.
	N	M*	SD	N	M*	SD	N	M*	SD	N	M*	SD	N	M*	SD		
Training and skills development of employees	42	3.62	1.08	13	3.77	0.73	7	3.71	0.73	23	3.09	1.24	13	3.85	0.90	1.385	0.237
Sending employees from HQ to Singapore	42	3.31	1.26	14	3.29	1.33	6	3.33	1.21	24	3.42	1.32	11	2.73	1.27	0.477	0.665
Use of corporate intranet systems to share skills and know-how	41	3.44	1.27	13	2.77	1.17	7	3.71	0.76	23	1.74	1.57	12	3.67	1.30	1.632	0.159
Sending employees to HQ	42	3.45	1.31	14	3.29	1.38	6	2.67	1.37	24	2.54	1.32	12	2.92	1.16	1.853	0.110
Rotating employees among different subsidiaries	41	2.07	1.17	13	1.46	0.78	7	2.86	0.69	23	1.83	0.98	12	2.08	1.24	1.748	0.132

*1=least frequently, ... 5=most frequently

Table 2: Analysis of Variance on Training Delivery Methods by MNEs' Country of Origin

Training delivery methods	USA			Germany			France			Japan			UK			F	Sig.
	N	M*	SD	N	M*	SD	N	M*	SD	N	M*	SD	N	M*	SD		
Classroom training and lectures	40	3.55	1.34	14	2.57	1.28	6	3.17	1.33	23	2.17	1.19	12	3.25	1.36	3.825*	0.003
On the job training	41	4.07	0.98	14	3.93	0.92	7	4.00	0.58	24	4.21	1.02	13	4.31	0.63	0.316	0.902
Audio-visual aids	38	3.11	1.23	13	2.85	1.21	6	3.33	0.82	23	2.39	1.12	11	2.91	1.30	1.236	0.299
Tertiary courses	39	1.92	1.01	13	2.23	0.93	7	2.43	0.79	22	1.86	0.89	10	2.50	0.85	1.347	0.252
Self-instructional materials	39	2.74	1.19	12	2.92	1.16	6	3.33	0.52	23	2.74	0.86	11	3.00	1.18	0.532	0.751
Computer-based training	40	2.78	1.25	14	2.86	1.17	6	2.83	1.33	23	2.30	1.02	12	3.08	1.38	0.894	0.488
Seminars and workshops	41	3.10	1.34	14	3.36	1.22	7	4.14	0.69	24	2.67	1.17	12	3.00	1.13	1.870	0.107
Overseas training	40	3.48	1.01	14	2.86	1.41	6	3.83	0.41	24	2.92	1.25	11	2.73	1.10	2.011	0.085

*Significant @ 0.05 level. *1= least frequently used; ..... 5 = most frequently used

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Increasing Capacity to Learn in the Learning Organization

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If HRD is a field of study and practice responsible for fostering long-term, work-related learning capacity, then we need to identify the learning actions that would actually help people increase their capacity to learn in order to transform themselves and their organizations. This innovative session is about exploring this question and developing a model for increasing learning capacity.

Keywords: Learning Capacity, Adult Learning, Learning Process

The purpose of this innovative session is to conduct an experiential workshop on how to increase learning capacity. This session is applicable for both faculty and practitioners who are interested in assisting others to achieve more meaningful learning experiences. This session is designed to involve the participants in an exploration and discussion about how to apply a different paradigm for learning. (This session is based on a graduate course I have conducted for the past five years both on- and off-campus, as well as internationally.)

Agenda/Format

- Presentation of the theory and supporting research (30 minutes)
- Experiential activities that can be used to apply the paradigm in both academic and organizational settings. (20 minutes)
- Small group discussion that would attempt to develop a model for increasing learning capacity (20 minutes)
- Large group synthesis and closure (participants would be asked to volunteer to help write a paper on the model that is developed (20 minutes)

Theoretical Discussion

There is a widespread belief that adult learning is one of, if not the primary theoretical basis of HRD. Those practitioners and researchers that advocate this perspective focus on individual and organizational change through learning and see HRD as "the field of study and practice responsible for fostering long-term, work-related learning capacity at the individual, group and organizational levels in organizations" (Watkins, 1989, p. 427). HRD is thus primarily concerned with "increasing the learning capacity of individuals, groups, collectives and organizations through the development and application of learning-based interventions for purpose of optimizing human and organizational growth and effectiveness" (Chalofsky, 1992, p. 179). Unfortunately, adult workplace learning still operates predominantly on a mechanistic, behavioristic paradigm for learning (Marsick ,1987; Chalofsky, 1996). Yet, it is not surprising, since most organizations are still structured and function bureaucratically.

The Weberian concept of bureaucracy is based on the same mechanistic paradigm. Organizations need to have clear, hierarchical lines of authority, jobs that do not overlap, and management through rational systems of delegation and control. Carr and Kemmis (in Marsick, 1987) talked about the dominant paradigm in the field of teaching and learning to be related to the Weberian ideal based on logical positivism. Practitioners under this paradigm are expected to master and apply an objective body of knowledge that had been developed over time through theory building and testing.

Another view of this paradigm was offered by Senge (1990) when he stated that "we are conditioned to see life as a series of events, and for every event, we think there is one obvious cause" (p. 21).

At this point in time most of us have heard about Peter Vaill's "permanent white water" metaphor, the implications of the "new sciences", and the new employment contract & new economy. The significance of all of the above is that not only is the rate and severity of change increasing, but also the nature of change is changing. Given the state of change and complexity in work (as well as in society in general)" . . . in complex systems

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possibilities can be known but precise *outcomes* cannot be predicted" (Nicoll, D, 1984, p.10). This means that there are not only multiple ways of knowing; of viewing reality, but, as Billy Joel stated in one of his songs, "the more I learn, the less that I know". We need to accept that logical, linear, one right answer thinking is not helpful any more. We need to accept divergence, multiple perspectives, and incomplete truths. In giving up the search for universal truth, we need to give up the notion that reality is based on fact. Reality is socially constructed and phenomenally based. Knowing, then, requires engagement and an acceptance that it is an interpretive, dynamic act. To learn, we continually need to be open to all possibilities; the Zen phrase, "a beginner's mind", captures the essence of this.

There are alternative approaches to learning (e. g. Jean Houston's work on increasing brain functioning and Howard Gardner's theory of multiple intelligences) and research that supports specific learning techniques that can be considered "alternative" (e.g. visualization or intuition), but little has been done to attempt to pull together a new approach to increasing learning capacity.

There is a critical need to identify and promote a counter-balancing paradigm for learning in organizations that helps organizations move through this transformation. This paradigm could draw from sources that have not been considered relevant in the past, such sources as women's ways of knowing, eastern philosophical thinking on learning, mind/body connections, and autonomous, informal learning. Such a paradigm consisting of the following elements has already been articulated (Chalofsky, 1996):

- learning based on minimal competence to learning based on *continual improvement*
- learning based on fear of failure to learning based on *risk-taking and creativity*
- learning based on individual performance to learning based on *team and collective performance*
- learning based on autonomy and competition to learning based on *cooperation and relationships*
- learning based on appraisal and criticism to learning based on *coaching, support, and feedback*
- formal learning to *informal* learning
- learning based on one right answer to learning based on *multiple answers*
- learning based on abstract, logical reasoning to learning based on *intuition and context*
- learning based on outcome (the destination) to learning based on *process (the journey)*

What we need to do next is to explicate the learning actions that would actually help people transform to this new paradigm. This session is about exploring this question and developing a model for increasing learning capacity.

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Layers of Learning: Promoting Performance Improvement and Action Learning in Higher Education

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This paper provides a case study for an innovative session exploring the relationship between academic programs in Adult Education /Human Resource Development and the higher education institutions that house them. The dilemmas of higher education today, the difficulties inherent for organizational change within this entrenched institution and the possibilities that action learning coupled with performance improvement and competency modeling strategies hold for effecting change will be discussed. The session will be highly participative.

Keywords: Action Learning, Performance Improvement, Higher Education

This paper provides an introduction to an innovative session designed to advance creative thinking about the nature of learning within the university and to explore possibilities about action learning within academic programs and the universities that house them. As this project continues to evolve, the learning has extended beyond the boundaries of this original paper. Therefore, ideas will be presented during the session that were not included in the paper. To stimulate discussion around both the positive and negative implications of the ideas originally proposed, the presenters will give a brief background description of the James Madison University (JMU) performance improvement project and their roles as administrators, faculty and students. Dramatic soliloquies will give voice to various competencies necessary to catalyze a relationship between academic programs and higher education institutions. Participants will work in small groups to identify personal and institutional competencies and then sort the competencies using a Q-sort technique, which is a highly participative validation method used by the JMU project team. As groups report back, the presenters will facilitate discussion of the ideas generated by the results. A connection between the processes used in the case study and the Probability of the Adoption of Change (PAC) model for higher education (Creamer, D.G. and Creamer, E.G., 1990) and characteristics of creative persons (Davis, 1986) will be introduced. Finally, the participants will be asked to reach a conclusion about the applicability of the concept of action learning as described by this case study. The session agenda follows the conclusion of the paper.

Dilemma's Confronting Higher Education

The health of American universities has been called into question over the past decade (Beede, M. and Burnett, D., 1999; Beede, M., 1999; Montano, C.B. and Utter, G.H., 1999; Wallace, J.B., 1999; Karapetrovic, S. Rajamani, D. and Willborn, W. W., 1999). Stagnant enrollment, poor retention rates, reduction in state funding, rising tuition costs, unsatisfactory services, and questionable educational results are among the symptoms of ailing higher education institutions. As in industry, globalization and technology have presented colleges and universities with fierce competition for declining numbers of "traditional" students. Employers expect graduates to be more knowledgeable and confident than ever before, equipped with skills to tackle the challenges of emerging innovations and markets (Bailey, D. and Bennett, J.V., 1996).

Ikujiro Nonaka, professor of management at the Institute for Business Research of Hitotsubashi University in Tokyo, Japan states: "In an economy where the only certainty is uncertainty, the one sure source of lasting competitive advantage is knowledge" (1991, p. 41). Innovative and successful Japanese companies approach knowledge creation within the organization as central to human resources strategy. The "spiral of knowledge" moving from tacit to explicit knowledge, to standardized knowledge and finally to knowledge internalized by others as tacit understanding represents the continual process of new knowledge creation. Beginning with the individual,

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"personal knowledge is transformed into organizational knowledge valuable to the company as a whole. Making personal knowledge available to others is the central activity of the knowledge-creating company" (p. 43).

Intentionality is explicit in Nanaka's description of the spiral of knowledge. The same is true in the *Student Learning Imperative*, a driving force behind uniting student affairs and academics as partners in the education of the whole student (Bloland, P.A., 1996). The key question posed by the *Student Learning Imperative* is "how student affairs professionals can intentionally create the conditions that enhance student learning and personal development" (ACPA, 1994). It assumes that "'learning', 'personal development', and 'student development' are inextricably intertwined and inseparable"; both in-class and out-of-class experiences contribute to personal development; learning occurs within a context through interactions with the environment; understanding and knowledge are critical for institutional performance; and responsibility must be shared between all employed members of the university community and students "for creating the conditions under which students are likely to expend time and energy in educationally-purposeful activities" (p. 118-119).

Further evidence of the importance of intentionality can be found in Purkey's (1992) invitational theory of education. Based upon perceptual tradition and self-concept theory, invitational theory combines peoples' perceptions of the events in their lives and their own beliefs about who they are and their place within the greater scheme of the world. It assumes the interdependence of people and the inherent need for trust and respect. It assumes optimism in the human potential, which "can best be realized by places, policies, processes, and programs specifically designed to invite development and by people who are personally and professionally inviting with themselves and others" (p. 3). Conditions created by organizations and individuals will be perceived as either inviting or uninviting.

Nanaka's spiral of knowledge, the *Student Learning Imperative*, and invitational theory, present several challenges to the university. How will the university remain competitive in changing and emerging market conditions; meet the challenge of intentionally creating an organizational climate that values and encourages individual knowledge creation and sharing; place student learning and development both in and out of class as its highest priority; and create an inviting environment for students, parents, faculty and staff to live and work?

Challenges for Effecting Change in Higher Education

The difficulty in creating strategies for change in higher education can be linked to confusion around the definition of the customer. Some analysts conclude that students have different roles in higher education. They are the product-in-process, i.e., the raw material when admitted and the finished product upon graduation (Sirvanci, M. 1996; Bailey, D. & Bennett, J.V. 1996). They are internal customers for nonacademic campus facilities, such as food service and dormitories (Sirvanci, 1996). They are the laborers for the learning process, who are actively involved in their education and the learning process and the internal customers for course delivery (Sirvanci, M. 1996; Bailey, D. & Bennett, J.V. 1996). Sirvanci contends that students lack the attributes often assigned to the customer: freedom to choose the product (students are required to meet entrance requirements), requirement to pay in full for the service (costs are shared by the state, parents, college) and the freedom for continued use of the product (students must continually prove worthiness to buy education through ongoing testing). Groccia (1997) identifies the student as both a customer and a learner. "They are customers because they have engaged in an economic agreement, a contract for goods and services and an opportunity to learn in an organization that is in the business of selling opportunities to learn." However, "A real learner is a producer, not a consumer, of the knowledge he or she gains…learning is a direct result of the student's efforts rather than a service that the student purchases." Wallace (1992) weighs in contending that the student is the primary customer of the University, arguing that consumers have responsibilities too. The customer, service or product provider relationship is neither passive nor one way. Thus, the University has a number of customers, not least of which is the student (Wallace, 1999, Sirvanci, M. 1996; Bailey, D. & Bennett, J.V. 1996). While employers will pay handsomely for students graduating from Harvard, and much less for the community college graduate (Bailey, D. and Bennett, J.V., 1996), without student satisfaction and accomplishment at either institution, there will be no "product".

Another challenge to change in Higher Education is the role of the faculty and the classroom to the larger institution, particularly student affairs. From its inception, Higher Education has been driven by the notion of knowledge for its own sake in the most academic of senses. As our world becomes smaller, more technological and work requires a more educated populace, the relationship of the classroom to the institution and to the larger society is changed. The classroom is no longer an isolated domain for the pursuit of knowledge lead exclusively and at the command of the faculty member. Technology diffuses access to information, when access occurs and what is done with the information. The classroom can provide the opportunity for transforming information into knowledge (Davis and Botkin, 1995). The University presents the environment to test and assess the value of new knowledge gained through integration of the academic with the environment. This is a changed stance, requiring new views about the role of student, faculty, administration and staff.

All types of institutions are shaped by external challenges and higher education is no exception. Among the challenges facing colleges and universities are new demographic mixes of students and staff; changing labor markets requiring new sets of skills and competencies; global competition through the internet and other information technologies; training and postsecondary education provided outside of the traditional higher education institutions; higher expectations for service from "customers"; and accountability and productivity demands from the public. (Mingle, 1998; Fenske, Rund & Contento, 2000; Jackson, 2000).

These challenges require student services personnel to continually learn new skills, acquire new knowledge, and become competent in providing service in a changing environment. The changing demographic mix requires greater attention to meeting the needs of diverse students and staff. The changing labor markets on and off the campus require that staff acquire new skills, particularly in information technology, and become more familiar with the skills students will need. Alternative forms of training and education require that institutions reexamine whether credentials are more important than competency. To meet higher expectations for service from its many "customers" higher education institutions will need to raise the bar on service performance and evaluation. Finally, accountability and productivity must become priorities for staff through best practices, benchmarking, process improvement, and performance improvement.

Change Strategies at JMU

In 1993 publication, *An American Imperative: High Expectations for Higher Education*, a study by government, business, and educational leaders re-examined what society expects from higher education. The report recommended that higher education take values seriously, put learning first and create a nation of learners. In response to this report and the *Student Learning Imperative* (1993) James Madison University reconceptualized its academic services and student services as integrated, collaborative, and seamless by creating the Student Success Initiative with the following mission:

> "to design, implement, coordinate and assess learning opportunities (programs and services) that help students complete seamless transitions into, through, and out of the institution; that develop the student's motivation to learn, engage in educationally purposeful activities, and assume self-responsibility; that are cohesive, supportive, and organized around common educational goals."

This process of change is supported and accomplished through the collaborative efforts of administration, faculty and staff across university functions. With the completion of the physical relocation of services in 1998, aligning all functions with the mission of Student Success is a high priority. As an example, departments such as Registration Services and Financial Aid that previously operated as functional silos are now charged with integrating their services. This integration represents a significant culture change within the departments, reorganization of job responsibilities and tasks, and potential systemic changes regarding areas of supervision.

In 1998, during this ongoing change process, the Student Success Curriculum Development Committee (SSCDC) was formed and charged with assisting staff in understanding their new role in the Student Success Program. After a year of team-building exercises, some committee members recognized that a more comprehensive development approach was needed. An administrator who was also a student in the HRD program made the Associate Vice President (AVP) for Student Success aware of his learning about performance improvement and instructional design. With employee development part of the AVP's work plan, he welcomed the suggestion that Student Success approach the Adult Education/Human Resource Development program. The Coordinator of the AHRD program had recently approached her Dean and the Director of Human Resources about forming collaborations where students could learn in a more active and authentic way, working as HRD consultants within the University. The time and circumstances were right for this partnership, a partnership that would create much more than a training program.

This collaboration introduced the concept of action learning, integrated student learning, performance improvement strategies, instructional systems design and continuous learning from an HRD perspective into the business of organizational change at JMU. It changed the way administrators and staff view the needs assessment process and produced comprehensive research-based recommendations and results. It provided students with an opportunity to work as "consultants" and implement the strategies learned in the classroom. These intentional efforts have created a spiral of knowledge for all involved including undergraduate students, graduate students, faculty, administrators and student success employees. On every level participants experience moving from tacit knowledge to explicit knowledge and transforming personal knowledge into organizational knowledge valuable to the university as a whole (Nonaka, 1991). The process for achieving these results can be described as experiential action learning (Yorks, L., Marsick, V.J. and O'Neil, J. 1999).

This project has become a research based action-learning imperative seeking to articulate boundary spanning employee competencies within the Student Service Center. The competency model and the participatory process of developing the model are the foundation for an ongoing system of development opportunities to equip employees to work successfully within Student Success.

Introducing Action Learning

In 1999, the Student Success Curriculum Development Committee (SSCDC) which originally include administrators, the Director of Human Resources and staff members directly related to the services provided, expanded to included a consultant team comprised of an Adult Education/Human Resource Development professor, three undergraduate students, one graduate student in the AHRD program, and a graduate assistant from the Student Success office. The committee members were asked to read several articles on informal learning (Marsick, V.J. and Volpe, M., 1999; Marsick, V.J., Volpe, M., Watkins, K.E., 1999), action learning (Yorks, L., Marsick, V.J. and O'Neil, J. 1999; O'Neil, J. and Dilworth, R.L., 1999; Nilson, G.E., 1999; and Yorks, L., O'Neil, J. and Marsick, V.J. 1999) performance improvement (Torraco, R. J., 1999a) and integrating learning with work (Torraco, R.J., 1999b) prior to the first meeting in January 2000. These articles provided a basis for discussing the multiple approaches available for learning and development, not only for the target employees, but also for the committee. Emphasis on learning and critical thinking through the ensuing months was blended with the ongoing tasks of performing the research. The core research team, which met weekly, but communicated daily, included the consultants, one administrator and one staff member.

A critical concern for the team was the breadth and depth of the project and the limited human and financial resources available for completing the numerous tasks. It was decided that in order to make the process manageable, the performance analysis and needs assessment would focus only on a few of the departments located in the Warren Student Services Center and the following year, extend the process to the Wilson Academic Center and eventually the Sonner Welcome Center.

After negotiating the scope of the assessment, the SSCDC decided to concentrate its efforts on seven functional areas with the assumption that most of the results would generalize to the remaining functional areas within Warren. Furthermore, the process for assessing the needs and developing the performance improvement proposal would be established and applicable to the Wilson Academic Center and other areas of the University. Through these activities, SSCDC provides the potential impetus for expanding the university from an organization for learning to a learning organization.

Integration of the intentions of Student Success with the learning objectives of the AHRD program proved nearly seamless because of a shared vision and trust established among the partners. The initial meeting of the SSCDC with the student consultants, framed by articles expanding assumptions about options for employee development, opened the door to a more comprehensive approach. Negotiation of roles and managing the focus on learning while accomplishing the defined task for Student Success proved challenging and continues to be negotiated, largely by the professor serving as the learning coach. (Yorks, L., Dilworth, R.L., Marquardt, M.J., Marsick, V., 2000). The University is a highly conducive environment for pursuing action learning because learning, in theory, is the business of the institution and HRD educators are housed there. The opportunity for authentic, dynamic learning abounds. However, the use of time, the role of the faculty member, and the relationship of the learning to the classroom, to other faculty members, to administrators, to students and to the University change dramatically.

Conducting Performance Analysis and Needs Assessment

Using Swanson's Performance Improvement Strategy (1994), a needs assessment of the Student Service Center was conducted in Spring 2000, which included the following departments located on the third and fifth floors of Warren Hall: Student Financial Services, Financial Aid, Card Services, Box Office, University Information, and Registration Services. The SSCDC entered the performance analysis and needs assessment assuming that staff would have difficulty describing Student Success relative to their job performance and requirements; customer service would be the major competency discovered; resistance would be high among staff for fear of further change or personal repercussions; and communication throughout the process would be critical. Since little change had resulted from the surveys taken by staff over the past year, the committee believed employees might feel the assessment was an exercise in futility.

Efforts to Overcome Fears. Beginning during the physical relocation of offices in 1997, the *Warren Neighborhood (Neighborhood)*, a group of supervisor level staff from the various departments in Warren, met monthly to discuss the continuing changes and offer input to the process. After the physical construction was completed, the *Neighborhood* has focused its efforts toward welcoming the students to the "new" center and measuring the performance of front line staff through a newly developed *Success Shopper* program. In Spring 2000, upon learning of the existence of the *Neighborhood* and its activities, the consultants suggested it be brought into the performance improvement process. A representative from the *Neighborhood* was asked to serve on the SSCDC. The AVP of Student Success gave a presentation to introduce the student consultant team and the forthcoming performance analysis and needs assessment to the to the *Neighborhood*. The group was asked to choose a contact person within each individual department to act as a liaison with the consultant team and a vehicle for dissemination of information.

Data Collection. Data collection conducted over several months from January- April 2000, included observations, document analysis, Success Shopper surveys, exemplary employee surveys, supervisor interviews, employee and student focus groups, and personal experience as students, faculty, and staff of the JMU community. Data was analyzed and organized according to Swanson's suggested performance variables: Mission/Goal; Systems Design; Capacity; Motivation; and Expertise (1996). The performance variables that are least affected by training often find their roots in the processes that define the mission or goal of the organization, the design of the operating and/or physical system, the capacity of human resources available and the factors that affect employee motivation. The SSCDC wanted to isolate the performance variables attributed to expertise or skill prior to further training development.

Over the course of several weeks, the core research team worked in pairs to analyze the data. When complete, the team met to consolidate the findings. Several revelations occurred. The data indicated that staff identity is connected to the workgroup and the role of student services staff as educator was negligible. Furthermore, while students readily provided concrete examples of good customer service and teamwork, the staff was less able to define the concepts in behavioral terms.

Results. Based upon the results of the performance analysis and needs assessment, four management interventions were suggested: 1) develop information and communication strategies, 2) eliminate physical barriers to success, 3) align jobs and position descriptions with the Student Success Mission, and 4) develop a reward and recognition program. The following essential knowledge/skills are indicated for employees in the Service Center: Interpersonal skills, Customer Service, Teamwork, Technical Expertise, General JMU Campus Knowledge, Core Knowledge of Other Student Success Departments, Lifelong Learning, and Instructional Skills. In order to develop the above competencies, recommended development interventions include: 1) design a Diamond Performance competency model articulating elements of Service, Specific Knowledge, Support Knowledge, and Student Learning, 2) design learning options, including "help books", self-assessment tool, computer software training, customer service and empathy training, supervisor "climate setting" skill training, and 3) establish process improvement action learning teams.

In the fall of 2000, the spiral of the learning partnership now extends further. Lead by the student consulting team, the validation of the Diamond Performance competency model is underway using a participatory Q-sort with nearly all of the employees of the Warren Service Center participating. The *Neighborhood* meets regularly and presents an ideal environment for initiating action-learning teams among the Warren Service Center employees. An HRD undergraduate class of 24 2^{nd}, 3^{rd} and 4^{th} year students will join the effort, serving as instructional designers for a "Day in the Life of A JMU Student" simulation determined by the needs assessment as necessary to enhance employee empathy and understanding of the students. The AHRD graduate course in Instructional Design will also join the consulting group over the next year to create a transition between consulting groups and complete implementation of the Diamond Performance competency model. The same AHRD graduate class, serving now as the core of the "new consulting team", will also initiate the needs assessment process in the Wilson Learning Center.

The SSCDC is exploring appropriate ways to evaluate the efforts to date and intends to expand the associated evaluation responsibilities beyond the committee. The Results-Based Approach to performance assessment and analysis (Phillips, J.J., 1997) and customer satisfactions surveys, such as SERVQUAL (White, L.S., 1998), offer possibilities for assessing the impact on the University financially and qualitatively. This also presents the very real opportunity for the AHRD 620 Performance Measurement and Evaluation graduate course to learn about and apply their learning about evaluation to a very authentic situation.

Management Response. The four management interventions identified through the Spring 2000 study have been delegated to the directors of the student service offices located in the Warren Services Center. Together with the *Neighborhood*, the directors will begin to address these elements. To develop information and communication strategies, the management group is exploring coordinated referral resources such as alphabetical quick-referral and frequently-asked-question handbooks for employees; consistent and visible signage and pamphlets of the Student Success mission and services; a web board to facilitate employee discussions; and electronic or printed newsletter of employee information and updates. To eliminate physical barriers to success, the management group is pursuing creation of a lobby management system; establishment of automated incoming phone lines; increased monitor locations and employee counter access to computers; and increased staffing and student assistance during peak periods. To align jobs and position descriptions with the Student Success Mission the management group hopes to work with the institution's Human Resources department to establish three categories of service: *ambassadors* (front-line people with high public contact and visibility), *facilitators* (engaged in gathering and processing information and solving problems), and *counselors* (providing in-depth advising for specific student needs). Finally, the management group will explore development of a reward and recognition program that reinforces the Student Success mission and expectations.

Integrating Academic and Action Learning in the University Setting

Through active outreach by the AHRD academic program and the openness of the university administration, JMU has established an intentional, integrated, experiential action-learning framework that is yielding positive results for all involved. This partnership provides valuable, authentic learning opportunities for both undergraduate and graduate AHRD students in the academic program. Administrators participating in the work report significant learning and application of that learning to other areas of their work.

Evidence is not yet conclusive regarding the impact of changes made through the process on the University. As is often the case with HRD interventions, some years are needed to know the full impact of the efforts (Phillips, J.J., 1997). In the short term, this initiative has enhanced the learning of AHRD students, administrators at JMU are much more aware of the AHRD program, high quality needs assessment and resulting interventions have been conducted at a fraction of the cost of a commensurate effort by external sources, and a process model has been developed and will be implemented in additional areas of the University in the coming year.

In order to achieve integration of academic and action learning within the university we found the following ingredients essential:

1) A strong, open leader within University administration willing to take risks and champion the effort,
2) An open, flexible academic program leader willing to explore new ways of teaching and learning,
3) Students grounded in performance improvement and instructional systems design approaches,
4) A real need to which HRD practices can effectively be applied,
5) Student learners willing to commit significantly beyond the three credit course,
6) Creative ways to recognize and value student commitment and learning,
7) Financial commitment from the University to cover costs for the interventions enacted as a result of the work,
8) Respect for and by all team members,
9) Time enough to meet, reflect, and adjust,
10) Celebrations of achievements at intervals consistent with the ebb and flow of the work and the evolving team membership.

Where these criteria are met, the likelihood for effective action-oriented learning is possible. Can these criteria be met? Are they worth the time, effort and adjustment needed by student, faculty, administration and staff? Do they yield a significantly better prepared student? Is the spiral of knowledge from tacit to explicit, from standardized to internalized, from personal to organizational achieved in any more meaningful way through this approach than another? Is what we describe action learning? These are the questions we hope to address during the innovative session this paper supports.

Conclusion

The practices of instructional systems design, performance improvement, action learning and competency modeling hold great promise for effecting real change in higher education. Moreover, Universities, as home to academic programs in human resource development and adult education, present natural opportunities for authentic learning and real change to go hand in hand. At JMU we have introduced a performance analysis and improvement process that can now be implemented in other areas of JMU Student Success over the coming years, thus providing an ongoing consultative relationship between the AHRD program and the University. In addition, the University gains valuable support in its ongoing improvement efforts. The real nature of the work, the convenience of the client location and the shared learning focus of the program and the institution make this dynamic learning partnership valuable to all involved.

With open communication, a shared valuing of and focus on learning and a real desire to implement change, HRD programs across the country could enter into real partnerships with their institutions to become centers for research and implementation of HRD practices engaging in work to both achieve results and learn from the process. By working together and embracing effectively implemented HRD practices, change in higher education can be achieved in ways consistent with those advocated for in the *Student Learning Imperative* (1993), advancing learning in higher education beyond words to new action-oriented heights of achievement.

Session Agenda – (Diane Foucar-Szocki, Moderator)

Overall Format: Inquiry-oriented participation to include prompting question, data provided through "scenarios" drawn from our case study, participant small group q-sort of factors influencing organizational readiness for action learning, performance improvement strategies and total group discussion of the theoretical frameworks and implications. (Timeframe: 90 minutes)

Introduction/Setting of Purpose "What issues in your organization most impact performance?"	10 Minutes
Client/Stakeholder Scenarios (Soliloquies with brief Q&A)	15 Minutes
Q-sort and discussion (Small group and facilitated large group discussion)	30 Minutes
Theoretical Frameworks for the "Features" (Facilitated large group discussion)	15 Minutes
Action Learning Definition and Discussion (Small group and facilitated large group discussion)	20 Minutes

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An Inquiry into the Continuing Professional Education of Information Technology Workers

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This study examined the practice of continuing education for the information technology profession using the model of the critically reflective teacher. A critical reflection of this author's practice resulted in a set of assumptions about developers, instructors and learners. These assumptions were examined for their alignment with similar concepts rooted in the literature and through interviews with developers, instructors and learners. Educational criticism and connoisseurship was then used to provide a description of current practice.

Keywords: Continuing Professional Education, Information Technology, Critical Reflection

Since the introduction of the computer in the 1940s information technology (IT) has been growing at an astonishing rate. Corporations rely on the storage and analysis of data to make decisions that directly affect their business. The men and women who install the computers, keep them running, and write the software necessary to facilitate the storage and analysis of data are the IT professionals.

Computer systems are continually evolving. Information technology professionals must keep up with the emerging trends in technology. This requires continuing professional education. The men and women who design and deliver this education provide an important role in the success of information technology. Designers and developers of continuing education for the information technology profession are responsible for the continuing success of the information technology profession. However, many of these developers and instructors become educators of information technology professionals without prior experience in adult education, adult learning, or course design. They are given minimal formal training in how to do their jobs. They do what they do by modeling the actions of other developers and instructors.

This research will help developers and teachers of continuing professional education for information technology workers reflect on their practice and provide more meaningful continuing education experiences for the information technology professional. Through a process of inquiry, much like the process undertaken in this dissertation, developers and instructors will come to see themselves more as continuing professional educators. In this way they will create the new idea, policy or strategy of action noted by Houle (1980). The new idea will be that they are educators first and subject matter experts second. The new policy will be that they will become facilitators of learning. The new strategy of action will be to seek out training in adult education and learning how to learn as a means to this end.

Problem Statement

The process of continuing education of IT professionals is about the lifelong learning and education of adults. This process involves three parties: developers of education for IT professionals, instructors of IT professionals, and IT professionals as learners. Although studies have been conducted involving each one of these parties no study involving all three parties has been conducted in examining the continuing education of IT professionals. Understanding the roles of these three parties in the process is an important first step in the improvement of the continuing education of IT professionals.

Theoretical Framework

Houle (1980), in his comprehensive work on continuing professional education, defined three modes of learning used by professionals: inquiry, instruction, and performance. Inquiry is the creating of a new synthesis, idea, technique, policy or strategy of action. Inquiry is a form of critical reflection where professionals must explore a new theory or method to identify its essential nature and explore the consequences of its application.

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Professionals build a repertoire of professional behavior through practice. Professionals often do not know why they do the things they do (Schön, 1983, 1987). The professional must become a reflective practitioner, one who undertakes thinking in action. This requires critical reflection on practice on the part of the professional.

There is also a necessity for the critical viewpoint in continuing professional education (Cervero, 1988). Continuing professional educators must do more than merely understand the technical aspects of their work. To become a critically reflective educator one must explore one's practice. This exploration must take place not only through one's own eyes but also through the eyes of others. The critically reflective educator explores practice through his or her own eyes, the eyes of one's peers, the eyes of one's students, and the literature on educational practice (Brookfield, 1995). The educator must examine his or her assumptions about the educational process.

The research performed for this dissertation used educational criticism and connoisseurship (Eisner, 1975) to explore the practice of continuing professional education for information technology workers. The result was a criticism of the continuing professional education of information technology workers. Through exploration of this author's practice, the literature, and interviews with developers, instructors and information technology professionals this research offered insight into the current practice of continuing professional education for information technology workers.

Research Questions

The following question concerning the continuing professional education of information technology workers guided this study:

What implications for theory and practice would result from critical examination through personal reflection on practice, a review of the literature and interviews with practitioners and learners?

Through this author's reflection on his practice the following assumptions were developed which guided the examination of the literature and interviews with developers, instructors and learners.

Assumptions about Developers of Continuing Education for Information Technology Professionals

1. Developers had little previous expertise or training in course development. They were subject matter experts or instructors who became developers out of need.
2. Developers were given minimal formal training in course development or instructional systems design. What expertise they had in development was obtained through their personal experiences or through other developers like themselves.
3. Developers followed no formal course development process. They developed courses because they saw a need. Content for courses came from their own experience in the subject or from other courses they had experienced.
4. Developers followed no formal evaluation process. Courses were deemed successful if the learners accepted those courses.

Assumptions about Instructors of Continuing Education for Information Technology Professionals

1. Instructors were hired for their subject matter expertise and had minimal formal training in adult education.
2. Instructors had been given little formal training in adult education or teaching since being hired. What expertise in adult education that instructors had acquired was through experience in what worked and what did not work in their teaching of courses. Instructors did their jobs the way they did because that was what they had seen other instructors do and their students accepted it.
3. Instructors evaluated their effectiveness and success based on the acceptance of their students and not on the learning that took place in their classrooms.

Assumptions about Information Technology Professionals as Learners

1. Information technology professionals had a wealth of learning experiences other than formal learning experiences.
2. Information technology professionals learned much from their peers.
3. Information technology professionals based the success of their learning experiences on the ability to turn

that learning into practice.

Methodology

This study examined the practices of continuing education for the information technology profession using the model of the critically reflective teacher (Brookfield, 1995). Brookfield refers to the first step in this process as a search for assumptions. The educator must examine his or her practice critically and develop assumptions about that practice. These assumptions are then examined for their alignment with similar concepts rooted in the literature. Other educators are consulted with to help shed more light on our practice. Learners are then interviewed to help us see ourselves as learners see us.

This study began by looking at continuing professional education in the information technology profession through the eyes of one who had spent 16 years developing and delivering courses to information technology professionals and who had taken continuing education courses as an information technology professional. This critical reflection resulted in a set of assumptions, as listed above, about developers, instructors and learners. These assumptions were then examined for their alignment with similar concepts rooted in the literature. The literature bases of continuing professional education, program development and instructional systems design, adult education, and learning how to learn were examined. Interviews with developers, instructors and information technology professionals were then conducted.

Educational criticism and connoisseurship (Eisner, 1975) was then used to provide a criticism of the continuing professional education of information technology workers. Eisner developed educational criticism and connoisseurship to enable the reflective practitioner to write a criticism of educational practice in order to enlighten other educators. Educational criticism and connoisseurship developed as a method of evaluating art curriculum. It has since been used in the evaluation of curriculum materials (Vallance, 1975), to examine the implementation of a non-graded primary program (McGee, 1993) and to explore the development of a system of teacher evaluation and supervision (Rodli, 1994). The research performed for this dissertation used educational criticism and connoisseurship to explore the practice of continuing professional education for information technology workers.

This study was limited in several ways. This study pertained to the technical training of information technology professionals. A limited number of interviews were conducted. This study did not attempt to assess differences between developers, teachers, and learners from different environments. Instead, each group - developers, teachers, and learners - was treated as being a homogeneous group.

All subjects either lived in the Chicago area or worked for companies in the Chicago area. No attempt was made to assess differences across geographic boundaries.

All developers conducted development for companies for which they worked and primarily for employees within those companies. No attempt was made to assess differences based upon whether developers created educational experiences for customers of hardware/software vendors, customers of training consulting firms, internal corporate use, or as independent training consultants.

Results

Based upon the findings of this study the following conclusions were reached relative to the assumptions about developers, instructors and learners.

Developers of Continuing Professional Education for Information Technology Workers

> *Assumption 1: Developers had little previous expertise or training in course development. They were subject matter experts or instructors who became developers out of need.*

This study found that developers of courses for information technology professionals began their jobs out of necessity. They saw the need for educating their colleagues and took on the challenge or they were put in the position of developing courses because of their expertise in the subject.

They had little development expertise. They were not formally educated or trained in program or course development or the instructional design process. They had not been formally educated or trained in adult learning or learning how to learn. They were subject matter experts. Any development expertise they had was self-taught. They had knowledge of the subject, had developed writing skills, and had a feel for the topic.

> *Assumption 2: Developers were given minimal formal training in course development or instructional systems design. Development expertise was obtained through their personal experiences or through other developers like themselves.*

It was found that developers did their job the way they did because it was the easiest way for them to do it. It was the quickest way to get the job done. It was the way they had seen the job done by others and now they were repeating what those others had done. The assumption was that if this process had worked for others it should work for them. There was little thought or reflection given as to whether it was actually the right or wrong way to do the job. If others did it that way and it seemed to work then it must be the right way.

Through trial and error developers learned to develop better and better materials in their view. As they developed more and more courses they learned what worked and what did not work. As they developed courses for different audiences they learned to structure them to fit the audience.

> *Assumption 3: Developers followed no formal course development process. They developed courses because they saw a need. Content for courses came from their own experience in the subject or from other courses they had experienced.*

The findings of this study show that the starting point for a development project was a new product, skill, or standard that needed to be disseminated. The skills of the developers' colleagues needed to be enhanced to make those colleagues better at their jobs, to insure quality, or to help those colleagues advance. The company may have taken on a new direction causing a knowledge gap that needed to be filled due to new technology resources being introduced into the environment.

The content for courses did not come from some rigorous analysis of needs. Rather, it was the developers' own knowledge of the product that dictated the content of a course. In the end it was the developers' own knowledge and experience that led them to assume what those taking their courses would need to know.

There were few objectives. The developers assumed they knew what had to be learned and put that material into the courses. Sequencing was performed intuitively by the developers. As subject matter experts who had learned the products themselves they copied the sequencing they had gone through to learn the product.

> *Assumption 4: Developers followed no formal evaluation process. Courses were deemed successful if the learners accepted those courses.*

This study found that developers employed several techniques to checkpoint the development process. Materials were given to another subject matter expert or manager to review. Often, the courses were taught to students to determine the value of the materials. Mistakes or failures were evaluated and materials were changed as needed. This was the type of formative evaluation employed by the developers. The "on the fly" nature of the course development often did not allow for more formal methods of evaluation.

Formative evaluation was done on live students. These were not test classes but the real thing. Several times this resulted in disaster as people were taught things that were not true. If problems did arise as the result of using the materials they were corrected.

There was no formal summative evaluation of the courses. If students were happy, if there were no errors, or if students could do the job after the courses were completed the courses were deemed successful. If students kept coming back to ask unanswered questions or if they could not perform on the job the courses were deemed failures.

Instructors of Continuing Professional Education for Information Technology Workers

> *Assumption 1: Instructors were hired for their subject matter expertise and had minimal formal training in adult education.*

Employers would probably like to think that they hired instructors for the combination of technical expertise and teaching background that they had. The findings of this study tell a different story. Some instructors worked in the information technology field for years before they became instructors. Others were hired straight out of college having obtained degrees in computer science. Still others had minimal technical skills when they were hired. New technical skills had to be developed on the job and on their own time amid the hustle and bustle of their often-hectic teaching schedules.

Instructors' teaching qualifications varied. Some had degrees in education, had student taught as part of their degree program, but had not actually been in front of a classroom since graduation. Others had technical degrees, had worked as teaching assistants in college, but had no formal training in education. Others had technical degrees, had been working in the information technology field, and had been forced into service training their peers. Still others, with technical degrees and limited experience as teaching assistants, were hired directly out of college.

> *Assumption 2: Instructors had been given little formal training in adult education or teaching since being hired. What expertise in adult education that instructors had acquired was through experience in what worked and what did not work in their teaching of courses. Instructors did their jobs the way they did because that was what they had seen other instructors do and their students accepted it.*

Through this study it was found that many instructors developed their teaching skills on the job. If they were lucky they had employers who put them through train the trainer programs. Some programs taught adult education theory. Some instructors had to co-teach with more experienced instructors before they were allowed to teach on their own. Some were video taped so they could observe themselves and make corrections to their styles. Some were assigned a mentor, a senior instructor, who helped them prepare for their roles as instructors.

Other instructors had to learn to teach on their own. They came into teaching thinking that all they needed to know was the technical subject. They learned that this just was not so. There were issues of classroom management and annoying habits to overcome. They had to learn that teaching was not just standing in front of a group and lecturing. They had to learn to employ other strategies in their teaching.

> *Assumption 3: Instructors evaluated their effectiveness and success based on the acceptance of their students and not on the learning that took place in their classrooms.*

How could you evaluate the effectiveness of a class? In an ideal world, students would be tested according to the outcomes expected from the course objectives. The results of this study showed that in the real world, after a five-day whirlwind tour of an extremely technical subject, students were handed an evaluation sheet. This evaluation sheet measured the students' pleasure with regard to the class. This said nothing about what they knew about the subject after having taken the class.

It would have been nice to have some sort of follow up. If students could have been contacted months after having taken the course and asked how the course helped them accomplish thei job it would have been possible for instructors to know whether their efforts had been successful. This did not happen.

So instructors had devised their own means of evaluating the learning that went on in their classes. Observation, mini reviews and questioning students were used. Workshops or labs were also powerful tools to evaluate student progress. If the workshops were structured so that students were given a chance to use the material soon after it had been discussed, the instructor could gauge the students' learning by how well they did in the workshop.

Information Technology Professionals as Learners

> *Assumption 1: Information technology professionals had a wealth of learning experiences other than formal learning experiences.*

This study showed that information technology professionals had a wealth of learning experiences other than formal learning experiences. Not all information technology professionals started out with a career in information technology as their goal. The four subjects interviewed for this study all began their information technology careers in different ways. Each had different sets of skills when they began. Each became involved in information technology in different ways. Each worked their way up the ranks learning as they went.

The types of learning experiences they had were also varied. In some cases the knowledge they gained was self-taught. Conferences and seminars were also utilized as learning experiences. Video training proved important for visual learners. Some learners used in-house training classes. Formal college classes were used. Every learner in this study had some sort of vendor training or external training course. Hands-on activities were provided as part of the training experience.

> *Assumption 2: Information technology professionals learned much from their peers.*

It was shown through this study that peer interaction proved a good way of enhancing one's technical skills.

Interactions took place both with co-workers within ones' own company as well as with contacts made outside the company. A variety of methods were employed in peer learning including brainstorming, meeting with group of peers, asking questions of colleagues and asking consultants working at other companies to share their opinions.

> *Assumption 3: Information technology professionals based the success of their learning experiences on the ability to turn that learning into practice.*

The learners in this study measured their success in learning in terms of having confidence and being able to achieve. A learning event was seen as successful if it proved a good basis for learning other things. If one could go away from a learning event with the confidence to try other things with the technology then the event was a success. Even if it just meant learning one new thing that one thing could be used as a staring point for learning more.

If one could see what needed to be done, actually do it, and produce the desired result then learning took place. The learner was now self-sufficient they had achieved their goals. There was a pride that came with this self-sufficiency. You wanted to show someone what you had done with the technology. Success may have been the first time the learner created a database, was able to take two servers out of production and get them working again for the first time, put together a successful project plan, or merely work better with other people.

Conclusions and Recommendations

The parallels between this author's assumptions about the practice of continuing professional education for the IT profession and the results of interviews with practitioners and learners painted the following picture. Changes in technology caused a need for new skills. A developer was given the task of coming up with a course that taught those skills. Using his or her expertise, developed by having taken a similar course and by experimentation with those skills, the developer decided what needed to be taught. A course was written. Lecture notes and workshop instructions were prepared. The course was ready to be taught.

A manager in information technology saw a need for one or more of his employees to learn new technical skills. The manager passed this request on to a training coordinator or some human resources person. The training coordinator called a sales representative from a training firm and bought a course or some seats in a course. The information about the course was filtered back down to the information technology employee on one side and to the instructor on the other.

On the first day of the class the learner, instructor and developer's product came into contact for the first time. In the interim, layers of communications had formed between manager and training coordinator, training coordinator and sales representative, training coordinator and manager, manager and employee, and sales representative and instructor. It was not surprising that information about the course was misinterpreted or not transmitted.

The developer had no training in designing courses. The process that was followed consisted of copying the course content of some similar course and adapting it for a particular situation. In all likelihood the course the developer had taken on the subject was designed in the same way.

In the classroom, it was up to the instructor to convey the need for the subject to his or her students and to apply the appropriate instructional strategies. But instructors had no training on how to do these things. So, they did what they had seen other instructors do or what seemed to work for them. But what if these other instructors had developed their strategies in the same manner?

The learners were being sent to training to learn new skills. As adults they were self-directed learners but they were being thrust into a situation where their learning would be controlled for the length of the course. But controlled by whom? Controlled by a course that was not developed using sound principles being taught by an instructor not trained in the teaching of adults.

At the end of the course the learner, the instructor and the developer had no idea of whether the course achieved its goal. It would be several months before learners knew if the course had given them the ability to turn those skills into practice. The instructor would not learn of the learners' success except by accidental contact. The developer might never know unless he or she worked for the same company for which the course was developed.

Developers should have been trained in instructional systems design and adult program development so they would know the importance of following a development process. Needs assessment, development of objectives, decisions about instructional strategies and evaluation plans would increase the likelihood that their courses would be successful. An understanding of learning how to learn would help them make decisions about which instructional strategies would benefit learners most.

Instructors should have been trained in adult education and learning how to learn. This would have helped instructors understand that adult learners needed to know why they needed to know. It would have helped instructors employ learning strategies that would best serve their students. By developing and using evaluation strategies in their classrooms, instructors would have been able to better evaluate the success of their students.

Learners would have benefited from training in learning how to learn. Learners employed a variety of learning strategies. Some of those strategies worked and some did not. By understanding what strategies worked best for them and how to make best use of the learning resources available to them learners would have made better use of those resources.

Employing a learning how to learn model for the continuing professional education of information technology workers would have had several benefits. Developers would have developed courses around a variety of instructional strategies designed to facilitate the transfer of skills to the learners. Instructors would have understood the nature of the learners in front of them and how to employ strategies that best served those learners. Learners would have been better prepared to use the resources available to them.

Contribution to HRD

There has been very little research on the process of continuing professional education of information technology workers. Further study will help to build knowledge in the field and improve the practices of developers and instructors with the ultimate goal of improving the quality of learning for information technology professionals. This research will help developers and teachers of continuing professional education for information technology workers reflect on their practice and provide more meaningful continuing education experiences for the information technology professional.

Through a process of inquiry, much like the process undertaken in this dissertation, developers and instructors will come to see themselves more as continuing professional educators. In this way they will create the new idea, policy or strategy of action noted by Houle (1980). The new idea will be that they are educators first and subject matter experts second. The new policy will be that they will become facilitators of learning. The new strategy of action will be to seek out training in adult education and learning how to learn as a means to this end.

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The Relationship between Professional Learning and Continuing Professional Development in the UK: The Implications for a Research Design

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This paper provides a critical review of theories of professionals' learning processes and the ways in which they manage their learning when in professional practice. It does this firstly by examining developments in the context of business professional practice, and then secondly by revisiting current assumptions about professional learning. It then moves on to engage with current debates within socio-cultural theory and situated learning ad cognition, before concluding with a discussion of key research questions.

Keywords: Business Professionals, Situated Learning

This paper seeks to critically review theories of professionals' learning processes and the ways in which they manage their learning when in professional practice. The focus upon professionals occurs because, along with other high performance knowledge workers, they are the fastest growing group in the UK workforce, and within this category, the growth in the number of business professionals is particularly marked. However, in examining the pressures for this group to engage in continuing professional development (CPD) it becomes immediately obvious that implicit assumptions about professional learning, and the learning contexts and processes in which business professionals might participate lie uneasily beside the conditions of business professional practice. This paper addresses this issue firstly by examining developments in the context of business professional practice, and then secondly by revisiting current assumptions about professional learning. It then moves on to engage with current debates within socio-cultural theory and situated learning and cognition, before finally concluding with a discussion of key research questions.

Theoretical Framework

Continuing Professional Development (CPD) has been defined as: 'The maintenance and enhancement of the knowledge, expertise and competence of professionals throughout their careers, according to a plan formulated with regard to the needs of the professional, their employer, and society' (Madden & Mitchell, 1993). It has been presented as having three main functions: updating knowledge and skills on existing and new areas of practice; preparation for a changing role in the organisation, new responsibilities and promotion; increasing competence in a wider context with benefits to both professional ad personal roles. However, this rather unproblematic definition does not address the importance of the context of professional practice. Neither do theories of adult and professional learning consider whether learning is context specific, and therefore different according to professional body membership and site of professional practice. At the same time questions arise about the way in which professional knowledge and expertise are conceptualised, and in particular, the prevalence of an individually-driven, cognitive, problem-solving focus in learning theory. The theoretical framework for this paper is developed by addressing four propositions.

Proposition 1: A Consideration of Developments in the Context of Business Professional Practice is Essential to Researching Professional Learning and CPD

Research into the sociology of professions has a long history, and, at the risk of simplifying a very rich debate, the main research questions have moved beyond defining and comparing the 'traits' of various professions, towards exploring the differences in the history, development, culture, and types of professional work (the processes

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of professionalisation) and the perceived fluctuations in professional 'power' and 'status' relative to other employee groups. The process of professionalisation can thus be seen as a battle for occupational closure and jurisdiction between different professional bodies (Abbott, 1988; Witz, 1992). Yet a Weberian preoccupation with the relationship between management and professional workers still persists in the assumption that there is more that unites the increasing numbers and types of professionals than divides them. However, while common features of professionalism and professionalisation may still be traced, the distinctive contextual developments are of more interest when looking at CPD. Fragmentation and the appearance of specialist interest groups, the emergence of new professional associations, and changes in membership profiles to include more young women and ethnic minorities and those on flexible contracts, are all characteristics of professional occupations in the field of business management in the UK where there has been a spectacular growth in professional employment over the last twenty years. Existing professional bodies in accountancy, personnel management and the law have consolidated their professional power and status (Armstrong, 1993; Hanlon, 1997; Hanlon & Shapland, 1997), while elsewhere, as in marketing, professional bodies are still in the process of mapping out the professional territory.

Within business management the conduct of professional practice has not remained static. The growing demand for professional work has been accompanied by changes in the professional division of labour, the location of professional work, the content of professional skills and the relationship between professionals and clients (Watkins, 1999). To start with the changes in the division of labour, these have accompanied increasing price competition and globalisation, and developments in new technology. On the one hand they have led to the growth of para-professional roles in fields such as accountancy and legal practice, thereby enabling the delegation of routine work such as company audit or conveyancing of property, and on the other to specialisation based upon firm size, type of work done, source of revenue, and client size. In the case of accountancy, business-driven pressures from the 'Big Five' firms in the UK have placed demands upon the main professional bodies for changes in the curriculum of initial professional development and CPD, which creates tension between meeting these new challenges of specialization while retaining the core identity of the professional knowledge base (Hoskins & Anderson-Gough, 2000). In addition, the growth of the professional services firm which provides multiple professional services has added further diversity to both the content, and the location of professional practice away from individual partnerships (especially in law and accountancy) or specialist units in corporate organisations, to a growth in specialist consultancies (such as in personnel management and marketing). In many cases this has been accompanied by a broadening of individual professional skill bases into other areas of business practice, and especially wider commercial and interpersonal skills (Hanlon, 1997; Hanlon & Shapland, 1997). Finally, public policy pressure for accountability to the public and clients, and quality assurance have resulted in efforts to demonstrate a greater transparency of professional transactions.

It is at this juncture that CPD becomes an important issue. Its significance has grown in association with the pressure for growing regulation, accountability and quality assurance of professional practice, and as a means for enhancing professional status. In particular, regulatory and quality assurance criteria (especially the 1991 UK Governance Regulations on Company Audit), appear to be a very significant stimulus for CPD in the UK accountancy professions, (Woodall, 2000). In contrast other professional bodies such as the Chartered Institute of Marketing and the Chartered Institute of Personnel and Development, have had formal but voluntary policies since the mid 1990s and tend to promote CPD in terms of lifelong learning which is more broadly conceived as including self-development and career development (which is endorsed to a certain extent by two of the finance professional bodies – The Chartered Institute of Secretaries and Administrators - ICSA - and The Association of Chartered Certified Accountants - ACCA).

However, when it comes to what is acceptable CPD activity among UK business professions, then, professional body policies display some common general trends such as the development of obligatory (and sometimes mandatory) structured CPD frameworks, the requirement for individual members to produce evidence of learning and CPD plans increasingly based on learning outcomes and competencies, rather than inputs (especially the Chartered Institute of Personnel and Development, the Institute of Chartered Secretaries, and the Chartered Institute of Marketing), and the provision of more individual support and guidance. Yet, business professional bodies can differ considerably in these respects. Some have moved to competence schemes (The Institute of Chartered Secretaries and Administrators - ICSA) and all the accountancy bodies not only have 'mandatory' CPD schemes which define what constitutes acceptable 'structured' CPD activities, for those who wish to retain their license to practice, but also prescribe preferred providers of these. The Chartered Institute of Personnel and Development (CIPD) appears to be unique in avoiding specification of preferred provision of CPD activity, and along with the Chartered Institute of Management Accountants (CIMA) and the Chartered Institute of Marketing (CIM) are alone in emphasizing self-directed learning, and learning from work-place activities. This is in marked contrast to the

Institute of Chartered Accountants for England and Wales which has rejected these measures, excluding activities that relate to 'normal working activities' from contributing to CPD.

Overall then, professional body CPD policies give little consideration to current thinking around managerial and professional learning. The accountancy bodies place particular emphasis upon professional course attendance, and possibly because they run short course units that earn considerable revenue, they have an ambivalent attitude towards the role of higher education within CPD. Also, while lip service is given to self-directed learning (Sadler-Smith & Badger, 1998) there is evidence that conflict between individual cognitive style and learning preferences might impede its take-up (Sadler-Smith et.al., 2000). There is evidence that professionals who are members of the CIPD may well support the principles of lifelong learning, and prefer job-related learning opportunities, and informal self-directed development, but strongly dislike formal monitoring and recording requirements (Jones & Fear, 1994; Sadler-Smith & Badger, 1998). Also, work-based learning is conceived of as occurring in an individually driven manner, with little recognition of the potential for social learning. There is glancing reference to the power of secondments and shadowing (CIMA) and mentoring (CIM), and some encouragement for peer mentoring and the creation of smaller networks and learning sets (CIPD).

Proposition 2: Conventional Theories of Professional Expertise and Learning, and Managerial and Adult Learning are Contradictory and Inconclusive

As already stated, the current state of theory in this field is complicated by the distinction between professionals and managers. In as much as the dichotomy between managerial and professional work has been eroded by the increasing professionalisation of management, there is a strong argument for viewing both groups as examples of knowledge workers operating in similar contexts, and where their learning processes will be similar. This raises three major issues.

First, any discussion of professional learning becomes embroiled in a debate about the nature of professional expertise. Traditional cognitivist accounts (Chi, Glaser, & Farr, 1988; Ericson & Smith, 1991) see this as stable individual mastery of well-defined tasks, whose development is often portrayed as occurring in a linear stage model such as in the Dreyfus et al, (1986) five stage model of novice; advanced beginner; competent; proficient; and expert. However, this assumes that the professional knowledge base is clearly identifiable, is centred on propositional knowledge with a high theoretical content, and in some cases (Drefus et al, 1986) the examples and evidence base are of questionable validity and relevance to professionals. Instead, Schon's landmark study of the 'reflective practitioner' has been hailed as both an anti-positivist and anti-technical rationality view of professional knowledge, and a celebration of the 'artistry' of professional practitioners (Eraut, 1994). Schon drew attention to the importance of tacit knowledge and the transformation of this 'knowing in action' into knowledge that goes beyond the propositional knowledge base and concepts of the professional discipline. Schon has been criticised by Eraut (1994,) for an over-focus upon instances of professional creativity rather than everyday routine professional practice, and for lack of clarity over what is meant by 'reflection-in-action' which is presented as a series of overlapping attributes, which are contingent upon a situation, and yet is undifferentiated in terms of the speed in which it might take place. This 'rosy' view of professional learning may be wide of the mark as left to themselves, many professionals are likely to indulge in unreflective action (Starbuck, 1993) given the many demands upon their time.

Despite these shortcomings, Schon's work has drawn attention to the centrality of professional learning through everyday work. However, this then comes up against a second issue which concerns whether the concept of 'managerial learning style' might apply, *a propos* the model established by Kolb (1984) and popularised by Honey and Mumford (1992). This model remains surprisingly resilient even in the face of trenchant criticism for over-simplicity, excessive cognitive focus, preoccupation with problem *solving* rather than problem *setting*, over-focus in the individual and disregard of the socially constructed and situated nature of learning (Jarvis, 1995; Reynolds, 1997; Holman, Pavlica and Thorpe, 1997). However, it would appear that most UK business professional bodies subscribe to this concept of 'managerial learning style' as a central element in their policies of CPD.

Thirdly, there is the question of how theories of professional learning relate to wider adult learning theory. The strongly humanistic values that underpin adult learning theory (Knowles, 1989) emphasizing the centrality of human agency and personal fulfillment again marginalise the significance of situation and context on learning. This is the case no matter the importance conceded to 'critical reflection' which challenges the assumptions underpinning pre-existing frames of reference, as a key component of 'emancipatory' professional learning. Instead the attention is focussed upon processes and attendant interventions to assist critical reflection and optimise the use of informal and incidental learning. Brookfield (1987) and Mezirow (1991) may well be able to identify a range of techniques to be used in a classroom situation to encourage critical reflection such as critical questioning, critical incident exercises, criteria analysis, role play, crisis simulation, brainstorming, scenario building), and Wood-Daudelin (1996) shows that one-to-one counseling followed by group facilitation is more effective than solitary reflection, but the conditions under which critical reflection might be encouraged or impeded in everyday professional practice have not been studied.

In as much as adult learning theory addresses the workplace, the main theme has been supporting the notion of 'informal and incidental' learning (Marsick & Watkins, 1990) which occurs naturally as managers go about their daily work, and arises out of trial and error in their tasks, and from their interactions with their own managers, peers, and customers. Both these forms of tacit learning occur in a haphazard manner, and are often triggered by disconcerting or challenging experiences. Marsick (1987) estimated that more than 80% of professional learning occurs in this way, and Marsick and Watkins (1990) provided evidence that professionals were more likely to learn from their peers (either as co-workers or mentors) a point that was reaffirmed by Eraut et al (1998). Baskett, Marsick, and Cervero (1992) have also argued that it is fallacious to assume both that professional learning occurs in isolation from others, and that learning is a purely cognitive experience. They have also shown how organisations can deliberately encourage informal learning through techniques such as action learning, peer-assisted learning, practice-based learning, individual learning contracts and mentors, 'cognitive apprenticeship' and workplace partnerships, and how important organisational context and culture is, a point that again has also been echoed by Eraut et al. (1998).

Others (Maister, 1993; Woodall & Winstanley, 1998) would argue that networking, mentoring, role-modelling, and participation in task forces and working parties create favourable conditions for such informal learning to take place. While the collection edited by Baskett and Marsick (1992) contains examples of how such techniques have furthered learning among different professional groups, to date there has not been a study examining the incidence of different types of learning among single professional groups. As Baskett, Marsick, and Cervero argue: 'One of the key implications of this work is the need for new models that take into account transformative learning, learning through relationships, intuitive knowing, the affective dimension of learning, and situational variables.' (p. 112)

The implications of the preceding discussion are that traditional theories of adult and professional learning draw attention to the importance of intuitive, tacit and social learning, but that they stop short of explaining relationships between this and specific organisational and occupational contexts. Also, because CPD schemes appear to focus upon individual effort and rely upon the individual bearing the costs of formal instruction, and loss of earnings for time off work, professional bodies are either not aware of or choose not to acknowledge the evidence of adult and professional learning, and often CPD is dominated by formal education provision that introduces a new syllabus rather than providing opportunities for reformulating existing theories of practice (Eraut, 1994)

Proposition 3: Socio-Cultural Approaches – Have Considerable Implications for Professional Learning and CPD, but Present a Challenge in Terms of Empirical Investigation

Reference to the social dimension of learning and 'communities of practice' has recently become fashionable. However, acknowledgment is often made in passing without full discussion of the differing perspectives and contributions. Perhaps the most oft-cited notion is that of 'community of practice' (Brown & Duguid, 1991; Lave & Wenger, 1991) to illustrate how novices move through a process of 'legitimate peripheral participation' in work settings to become experts. The main point is that the learning is interactive, informal and tacit, relying upon 'war stories' rather than instruction transmitting propositional knowledge to passive individual learners.

This approach is one of several (see Granott, 1998) that have evolved out of the activity theory developed by Vygotsky which suggests that human mental functioning evolves from the negotiation of meaning within a community of learners, and where the internal construction of reality is the result of interactions with adults, tools and more capable peers. Vygotsky's ideas were focused mainly upon childhood learning, with most research carried out in American grade twelve classrooms. However, Bonk, and Kim (1988) have shown that the six key socio-cultural concepts (zone of proximal development, internalization, scaffolding, intersubjectivity, cognitive apprenticeship, and assisted learning) can be applied to adults, and through combining the six teaching methods that are to be found in cognitive apprenticeship with seven forms of learning assistance, ten socio-culturally-based teaching techniques can be generated (modeling, coaching, scaffolding and fading, questioning, encouraging articulation, encouraging exploration, fostering reflection and self-awareness, providing cognitive task structuring, providing feedback on performance, and direct instruction). They argue that the socio-cultural opportunities that flourish in informal adult learning settings in terms of both cultural institutions and artifacts are immense, but present a considerable challenge in working with adult learners who are accustomed to more traditional teacher-centred instruction - a point of considerable relevance to considerations of CPD.

These ideas are valuable in drawing attention to the socially situated nature of learning and in providing an intellectual challenge to the subject-object dualism inherent in cognitive approaches. However, they are not without problems, including a tendency towards reductionism (Bredo, 1994) whereby the processes of 'internalisation' of learning within the individual are ignored, and intelligence becomes an unreflective practice that just happens. In addition, the distinction between novice and expert can become problematic where individuals are moving in and out of a variety of communities of practice; and the definition of professional knowledge as something distinct from basic knowledge becomes fuzzy. Finally, the issues of professional power and status including willingness to share expertise and the role of formal teaching and instruction become unclear. To some extent this is acknowledged by some of the main proponents of situated learning theory (Greeno et al, 1999), and researchers in the field of HRD (Torraco, 1999). But while providing an interesting new insight into how professionals might learn, situated learning theory simultaneously raises problems, especially around understanding how individuals learn when they are acting across organisational contexts, and moving flexibly in and out of job roles (Triche & St. Julien, 1995).

In the same way that discussions around professionalisation require a theory of the development of expertise, so the debates around situated learning ultimately come to the same point of engaging in debate about the development of knowledge. Scribner (1986) developed the notion of 'practical thinking' based upon studies of job tasks that are routine parts of everyday activities to demonstrate how even those with little formal education such as dairy workers, become engaged in complex thought processes displaying considerable flexibility and ingenuity to both solve and set problems in their work activity. Her results provided evidence that challenged conventional cognitive assumptions about learning and in particular the movement from the abstract to the concrete. Scribner was keen to dissociate her work from those working on 'situated cognition', because she emphasised *activity* (an integrated function of thought and setting) as the defining event for practical intellectual activity, and developed a research design combining observation and in-depth interviews. Engestrom and Middleton (1998) who examined "mindful practices and communicative interaction as situated issues in the reproduction of communities of practice" (p. 1) also challenged traditional cognitive psychology to show that cognition is distributed between individuals and between human beings and their artifacts, so that "work practices are ineluctably communicative practices" (p. 4). In doing so they openly acknowledge their debt to the sociologists of the Chicago School such as Becker, Glaser and Strauss, as well as the pragmatist philosophical tradition associated with Dewey and Mead. Indeed, one of the contributors to their collection, Susan Leigh-Star (1998) also demonstrates the contribution of American Symbolic Interactionism to activity theory's understanding of the relation between work and practice. However, the main problem for socio-cultural theory is the specification of the social unit within which 'mindful practices and communicative interaction' or 'practical thinking' take place, and which can be examined in experiments without constraining and excluding the activity being studied. Granott (1998) has gone some way towards this with her notion of the 'ensemble' as a unit of analysis defined as the smallest group of people who co-construct knowledge through interaction. Nonetheless, the problems for data collection associated with this approach are enormous.

Such ideas have considerable implications for CPD. In particular, the current professional body emphasis upon individual learning, and also the preference of some for formal instruction by prescribed providers displays an ignorance of the socio-cultural dimension of learning. This would not only take account of the fact that professionals can learn collectively from their professional interactions, but that the different 'cultural milieux' including different types of workplace (for example the professional services firm versus small firm partnership or freelance consultancy) and artifacts (such as access to various forms of ICT, the jargon of professional expertise, or the location of professional offices - from big open-plan offices to 'virtual' offices for those who 'hot desk' or work remotely) might influence the learning that takes place is not considered. It also raises questions about the support provided both by professional bodies and by other trainers within organisations, and whether they have sufficient expertise in the ten 'socio-culturally-based teaching techniques' identified by Bonk and Kim (1998).

Proposition 4: The Affective Dimension of Professional Learning is a Neglected Aspect

Finally this paper turns briefly to the emotional dimension of learning - a subject that has been neglected relative to the attention given to socio-cultural theory. Indeed, the predominance of rational cognitive perspectives in studies of organisational behaviour and management learning has shut the affective dimension out, even from those who provide critiques of the cognitive approach (Holman, Pavlica, & Thorpe, 1997). Of course, the work of Hochschild (1983), Fineman (1993), Vince (2001, forthcoming), and others has shown how central a consideration of emotions is to any understanding of organising. And neurological research evidence now shows that emotion is essential to cognition (Damasio,1994). But, it is curious that the relation between emotion and learning has been neglected in relation to managers and professionals, even though it is evident that emotions can both interfere with learning and they 'shape' the learning that takes place (Fineman, 1997): "emotions should be considered not just a by-product or interference to the learning process, but also intrinsic to what is learned" (p. 13). The affective dimension also bring in the dimension of personal and private lives (Merriam & Clark, 1991). Furthermore, there is a whole area of therapeutic and humanistic psychology that recognises the link between emotional state and learning. There is certainly a need to explore this field further, but this is currently beyond the bounds of this paper.

Discussion and Conclusion: Towards a Research Design and the Contribution to HRD Knowledge

There are a number of major findings from this review of literature around professional learning. Firstly, it is argued that professional learning needs to be studied in the context of specific professions, if the discussion is to progress beyond simple reporting, classification, and prescription of learning strategies. Secondly it is debatable as to whether a distinct category of professional learning exists that can be separated from managerial or adult learning. Thirdly, notwithstanding this point, the weakness of the highly individualistic approach to learning from all three perspectives demands attention to the social dimension of learning.

Fourthly, the socio-cultural approach to professional learning reinforces the importance of attention to the professional context, but is not without conceptual fuzziness over the unit of analysis to be studied, and a tendency to reduce all learning to activity and interaction, thereby excluding the personal and intra-psychic dimension. Finally, a key element of this latter dimension, namely emotion, appears to have been excluded from most discussions of learning.

Obviously it would not be possible to address all of these points within a single research design, which must of necessity set boundaries. Thus a limited set of research questions have been identified for further study:

1) To what extent does the context of professional socialisation influence orientations towards learning and participation in CPD?

2) To what extent does the context of professional practice (location, firm structure and size, type of work, client size, source of revenue etc.) influence participation in CPD and the learning strategies adopted?

3) What balance do individuals perceive they strike between individual and social dimensions of learning, and what are the main techniques by which this is achieved?

4) How do individuals manage their learning when they are moving across organisational contexts and between different job roles in their professional practice?

These are challenging questions that present considerable problems in terms of research design and data collection in particular. At present this research project is focused upon an interpretative longitudinal research design comparing individuals who are recent graduate entrants into a profession with mid career practitioners. Following an initial collective briefing about the purpose and conduct of the fieldwork, the intention is that data collection will be principally by means of life history interviews, self-report diaries, and individual semi-structured interviews at intervals.

With respect to the contribution to HRD knowledge, this paper encourages critical reflection on established views of the distinctiveness of professional learning, and provides a case for how this might well be determined by the contingencies of professional practice. In consequence it also has implications for public policy as it challenges many of the simplistic assumptions about how professionals (should) learn, ad also indicates potential courses of action for UK professional bodies in their quest to increase effective participation in CPD.

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A Comparative Analysis of Problem-based Approaches to Professional Development

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A literature review was conducted of four problem-based approaches to professional development: case study, goal-based scenario, problem-based learning, and action learning. The review found key differences in the nature of the case problems and training strategies used in the approaches. These differences result in different training outcomes, particularly with respect to single-loop versus double-loop learning and problem-solving in well-structured versus ill-structured domains.

Keywords: Professional Development, Problem Solving, Training Strategy

Problem solving is an important aspect of professional practice (Bereiter & Scardamalia, 1993). Professionals rely on their problem-solving skills to handle the increasingly ill-structured nature of their work (Schön, 1987). Organizations sponsor a variety of formal professional development programs to develop the problem-solving skills of their professional staff. It is believed that because professional development programs generally focus on work problems as the basis for learning, the ability of professionals to solve problems improves as a result of their participation in these programs (Dixon, 1998; Lohman & Finkelstein, 2000; Schank, Berman, & Macpherson, 1999). However, previous research has found that problem-based approaches to professional development vary in their ability to foster higher-level cognitive skills. Therefore, a detailed examination of the ways that problem-based approaches to professional development are designed is warranted. Such an examination will provide useful information for designing professional development programs that promote the kinds of skills that professionals require in today's workplace.

Problem-based Approaches to Developing Professional Expertise

Traditional studies of expertise have established that experts differ from novices in the way they solve problems (Chi & Glaser, 1985; Chi, Glaser, & Farr, 1988). Experts possess sophisticated schemata that contain information about the goals, facts, constraints, solution procedures, and possible solutions related to particular problems (Palumbo, 1990). Schemata are activated by experts during problem solving and enable quick movement from the identification of a problem to the selection and implementation of solution procedures. Activation of schemata reduces the amount of mental resources that a person requires to deal with a problem, thus increasing one's mental capacity to attend to important details of a problem—details which might prove critical to its accurate classification and resolution. Experts continually expand their expertise by reinvesting their mental resources to progressively reformulate fundamental problems at higher and higher levels of complexity (Bereiter & Scardamalia, 1993).

Professional development programs generally focus on work problems as a vehicle for learning. A decision to be made when designing these programs concerns how to structure and present problems so as to promote and reinforce expert problem-solving behaviors (Albanese & Mitchell, 1993). Four problem-based approaches are typically used in professional development programs: case study, goal-based scenario, problem-based learning, and action learning. The case study approach involves a trainer leading a group of trainees through the identification, analysis, and resolution of a problem (Fulmer, 1992; Harling & Akridge, 1998). In a goal-based scenario, trainees perform procedural tasks in a simulated work environment to accomplish a goal (Schank, 1994). Problem-based learning engages trainees in a cyclical process of problem framing, self-directed learning, and hypothesis formation and testing to solve an ill-structured problem (Hmelo & Ferrari, 1997). And, in action learning a group of individuals selects a real work problem to address, frames and analyzes the problem, generates and implements solutions, reflects on the results of the group's actions, and takes action again (Dixon, 1998).

While all four approaches involve trainees in the problem-solving process, clear differences exist with respect to the structure of the problems addressed and their representativeness of typical problems that trainees face

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in practice (Gallagher, 1997; Marsick, 1990a; Norman & Schmidt, 1992; Schank, 1994). Furthermore, the four approaches differ with respect to the types of training strategies that are used to guide trainees through the problem-solving process (Barrows, 1996; Marsick, 1990a; Schank, Fano, Jona, & Bell, 1993; Watkins & Brooks, 1994). These design differences are significant, because they result in different types of learning outcomes, particularly as they relate to problem-solving skill—a skill that professionals require to handle the increasingly ill-structured nature of their work.

Therefore, the purpose of this paper is to report the results of a comparative analysis of the designs of four problem-based approaches to professional development (case study approach, goal-based scenario, problem-based learning, and action learning) and the impact of design differences on the development of problem-solving skill. Three research questions guided the analysis: (1) How does the structure of the case problems in the selected problem-based approaches differ? (2) How does the design of the training strategies in the selected problem-based approaches differ? (3) If substantive differences in case problems and training strategies are found, what impact do the differences have on the development of problem-solving skill?

Methodology

A literature review of problem-based approaches to professional development was conducted. Education literature as well as business and medical literature were reviewed. The PsychInfo, Medline, Florida State University Library, and ERIC data bases were searched. Keywords used in the search included: case method, case based, case study, problem based, goal-based scenario, action learning, management training, professional development, professional continuing education, problem solving, learning skills, independent learning, and learning strategies. The resulting literature, consisting of 95 articles, was reviewed.

Findings

This review of literature found that all four problem-based approaches (PBAs) focus on multidisciplinary and complex work problems as the vehicle for learning. Beyond this similarity, the literature review also found key differences in the case problems and training strategies used in the four approaches.

The nature of case problems in the four PBAs differs in two important ways. First, problems vary in their degree of structure. Described on a continuum of well-structured to ill-structured, some approaches use case problems that are more well-structured, meaning that the problems more clearly identify: (a) the type of problem, (b) procedures for specifying solutions, and (c) one or several right solutions (Frederiksen, 1984). Other PBAs use more ill-structured problems, meaning that the problems lack the three aforementioned features. Second, some approaches use prototypic problems more than others. Prototypic problems are examples of routine problems seen in practice that contain high numbers of critical features (for example, signs, symptoms, and causes) in common with other examples of that type of problem (Mandin, Jones, Woloschuk, & Harasym, 1997).

The training strategies in the four PBAs were also found to differ, with some having stronger expert-orientations and others having stronger learner-orientations. The determination of orientation was made by examining the type and sequencing of training events that are used in each approach and who is responsible for carrying out those events (Smith & Ragan, 1999). Differences in the four problem-based approaches relative to the aforementioned features of case problems and training strategies are detailed in this section.

Case Study Approach (CSA)

A case problem in the case study approach consists of a rich written account of a problem situation. This account details relevant facts, constraints, extraneous information, and conflicting viewpoints of people involved in the situation (McWilliam, 1992), and includes ancillary materials such as diagrams, charts, financial reports, memorandums, and market data (Graham, Morecroft, Senge, & Sterman, 1992). Procedures for solving a case problem are generally prescribed for trainees prior to or during the analysis of the problem. As problem analysis progresses, trainees are guided toward one or several appropriate solutions. Therefore, in the CSA the problem situation is framed for trainees, procedures for specifying solutions are provided, and trainees are led toward one or several best solutions (Gallagher, 1997). Because of these structural features, case study problems are described as fairly well-structured.

The training strategy used in the case study approach is the most expert-oriented of the four PBAs (Marsick, 1990a). The objectives for a case study are generally shared with trainees at the onset of training. Trainees engage in the: (1) discussion of the basic facts of the case, (2) determination of concepts and principles that apply to the case, (3) listing and evaluation of possible causes and solutions, (4) selection of a solution, and (5) discussion of solution implementation (Fulmer, 1992; Harling & Akridge, 1998). Trainers guide trainees through these five steps by focusing the discussion on important issues, providing trainees with factual information and theory or pointing trainees in the right direction to find answers for themselves, guiding the case analysis approaches used by trainees, using group dynamic techniques to stimulate interest, and synthesizing what has been learned in the final debriefing (Romiszowski, 1995). Because a trainer is frequently asked to supply technical information during the analysis of a case, it is helpful for that person to possess expertise in the subject matter being addressed.

The case study approach is generally conducted in a live classroom setting with a group of 20 to 30 trainees (McWilliam, 1992). However, some professional development programs have experimented with conducting case analyses via instructional and communication technology. Multimedia systems have been used to provide trainees with access to case information through links to websites and to present information in a number of formats, including text, verbal commentaries, graphics, and video clips (Birchall & Smith, 1998). Electronic communication systems, such as email and chat rooms, have been incorporated into multimedia technology to facilitate case discussions. Some common problems cited with these electronic communication systems include difficulty in maintaining an overall view of the content and structure of previous discussions as well as difficulty in keeping trainees on tasks or topics that trainers want to focus on (Romiszowski, 1995).

Goal-based Scenario (GBS)

In a goal-based scenario trainees are responsible for accomplishing a goal in a simulated work environment. The simulation begins with the presentation of the training objectives and training goal (Kolodner, 1993). Trainees receive a minimum amount of problem information at this point. They are allowed to take a variety of paths to gather information and work toward their goal, but they must work with the information and paths that are specified by the simulation. A GBS ends when a trainee produces a product that closely matches one specified by the simulation. Because a goal-based scenario requires that trainees frame the problem and because it provides a number of paths to take in deriving a solution as well as contains a limited number of model solutions, its problems are characterized as moderately structured. These moderately structured problems tend to be prototypic, representing common types of work problems found in practice (Macpherson, Berman, & Joseph, 1996; Schank, 1994).

The training strategy in a GBS is somewhat more learner-oriented than the strategy in the case study approach. Trainees typically work independently or in small groups on a goal-based scenario and are responsible for performing a number of complex procedural tasks. To accomplish these tasks, trainees gather and analyze contextual, procedural, and content information from computer-based resources, such as video clips and archived organizational records (Schank et al., 1993). Experienced consultants serve as trainers, and are responsible for coaching trainees on technical and procedural matters during the simulation.

Problem-based Learning (PBL)

Cases in PBL are more ill-structured than either those used in the CSA or GBS. In problem-based learning, trainees acquire the knowledge and skills they need to identify, understand, and solve an ill-structured problem as they encounter it (Galey, 1998). The following PBL case, dealing with the handling of hazardous materials, illustrates the three structural features of an ill-structured problem: (a) the exact nature of the problem is unclear and some information, but not enough to solve the problem, is provided; (b) more than one way to solve the problem exists; and (c) the problem does not have a single right answer:

> You are the supervisor of the day shift of the local hazmat [hazardous materials] unit. It is 6:00 a.m. on a cool autumn morning. You are sleeping when the phone rings. You answer and hear, "Come to the Clear Creek bridge on Route 15. There has been a major accident and you are needed." Quickly, you dress and get on the road to hurry to the site of the emergency. As you approach the bridge, you see an overturned truck that has apparently crashed through the metal guardrail. It has lost one wheel and is perched on its front axle. You see "corrosive" written on a small sign on the rear of the truck. There is a huge gash in the side of the truck and from the gash a liquid is running down the side of the truck, onto the road, and down the hill into a creek. Steam is rising from the creek. All traffic has been stopped, and everyone has been told to remain in their cars. Many of the motorists trapped in the traffic jam appear to be angry and frustrated. Police

officers, firemen, and rescue workers are at the scene. They are all wearing coveralls and masks. The rescue squad is putting the unconscious driver of the truck onto a stretcher. Everyone seems hurried and anxious. (Gallagher, 1997, p. 15)

The ill-structured cases in problem-based learning are prototypic of problems regularly found in practice (Lohman & Finkelstein, 2000). In the medical field, for example, because pneumonia is recognized as more typical of respiratory diseases than hydrothorax, a PBL case dealing with a patient battling pneumonia would be used to develop understandings of common signs, symptoms, causes, and treatments for respiratory diseases (Albanese & Mitchell, 1993).

A learner-oriented training strategy is used in problem-based learning to help trainees learn how to solve ill-structured problems. Training objectives are specified for PBL, but are not shared with trainees at the beginning of training to avoid supplanting problem causes and solutions in the minds of trainees and thereby short-circuiting the discovery process (Dolmans, Schmidt, & Gijselaers, 1995; Norman & Schmidt, 1992). The training strategy involves five main events: (1) a problem is presented to a group of trainees and the group attempts to identify the broad nature of the problem as well as facts, factors, and constraints associated with it; (2) trainees analyze underlying problem causes, solution procedures, and possible solutions; (3) trainees identify unknown facts and learning issues, identify learning resources, and divide up independent research tasks; (4) trainees conduct independent research; and (5) trainees reconvene, reflect on what they have learned, apply their new understandings to the problem, and refine and revise hypotheses about problem causes and solutions (Hmelo & Ferrari, 1997; Maudsley, 1999). This cyclical problem-solving process continues until one or several solutions emerge to form an appropriate conclusion to the problem (Barrows, 1996).

The conventional format of problem-based learning involves medium size groups of five to eight trainees and a trained facilitator (Lohman & Finkelstein, 2000). Trainees are responsible for determining what knowledge and skills they need to learn, gathering and analyzing information, and monitoring their progress through the problem-solving process (Galey, 1998). Trainers help trainees perform these problem-solving tasks by providing cognitive, metacognitive, and procedural support (Gallagher, 1997; Hmelo & Ferrari, 1997; Schmidt, 1994).

Action Learning

The last problem-based approach, action learning, also focuses on solving ill-structured problems (Marsick, 1990a). However, the problems addressed in action learning may be the least prototypic of all four problem-based approaches. This is because participants generally choose which problems to work on and their decisions are based on the impact that problems presently have or may have on organizational performance (Raelin, 2000). Examples of ill-structured problems that have been addressed in action learning projects include the creation of financial and nonfinancial measures for assessing managerial performance and the design of organizational restructuring plans. These two problems are classified as ill-structured because they lack clear identification, procedures for specifying solutions, and one right solution. However, they are not necessarily prototypic of other problems that action learning participants regularly face in their organizations.

Similar to problem-based learning, action learning has a strong learner-orientation. Its basic premise is that adults learn best through collaboratively working with, and reflecting on, actual problems that are meaningful to them (O'Neil & Marsick, 1994; Watkins & Brooks, 1994). The process of action learning is seen as a cycle, with phases of problem identification, solution exploration, solution testing, monitoring and problem reformulation. Its focus is on problem finding and analysis. Often, problems are initially identified in technical terms, but are reformulated in people terms. This reformulation takes place as group members try out solutions and, in the process, uncover hidden misperceptions, norms, and expectations of people in the organization. These hidden perceptions, once made explicit and examined, make it possible to rethink the ways that problems are framed and solved (Marsick, 1990b).

Action learning groups range in size from 6 to 12 people (Froiland, 1994). In some situations, groups are comprised of a single stakeholder for the work problem that is being addressed with the rest of the participants coming from different businesses or functions within a company. These non-stakeholders are included to provide the group with fresh perspectives on the problem being addressed (Marsick, 1990a). In other instances, all group participants come from the same department or division of a company and have a stake in solving the problem.

Because action learning requires examination of one's private beliefs and assumptions, it can be an unexpectedly difficult and emotional process (Dixon, 1998; Watkins & Brooks, 1994). As such, it is a process that requires facilitation. A facilitator is responsible for providing an environment where participants can make explicit their privately held beliefs, guiding participants in the examination of their beliefs, and questioning tacit assumptions shared by participants.

Discussion

The review of literature found that problem-based approaches to professional development use different types of case problems. Problems tend to be ill-structured in action learning and problem-based learning, moderately structured in goal-based scenario, and fairly well-structured in the case study approach. Two of the four approaches, PBL and GBS, use problems that are prototypic of common types of problems in practice. The literature review also found that problem-based approaches differ with respect to their training strategies. The case study approach uses the most expert-oriented strategy, goal-based scenario uses a more learner-oriented approach, and problem-based learning and action learning are strongly learner-oriented.

Impact of Design Differences on Problem-solving Skill Development

The identified differences in the designs of the four problem-based approaches have important implications for the types of problem-solving skill outcomes that can be expected from a training/learning experience.

In the case study approach, trainees are seldom responsible for problem framing, since rich information about a problem situation is typically provided in a case (Smith, 1987). This feature of a CSA is particularly concerning, because all too often the wrong problems get addressed in organizations, especially when problems are ill-structured, complex, and involve many stakeholders (Marsick, 1990a). Furthermore, the case study approach tends to be expert-oriented, with solution procedures, technical information, and a range of acceptable conclusions for case problems provided by trainers and/or other information sources. This directed guidance diminishes trainees' engagement in cognitive tasks related to problem analysis (Raelin, 2000). In sum, the case study approach generally limits trainees' engagement in problem framing, specifies various solution procedures for trainees to use, and limits the range of acceptable solutions. As a consequence, it is likely to promote single-loop learning (Bridges & Hallinger, 1997). Single-loop learning results in the detection and correction of a problem "without changing the underlying policies, assumptions, and goals" of the problem (Argyris, 1980, p. 291). This type of learning promotes the ability to apply newly learned knowledge and skills to work problems that are highly similar to those encountered in training. In other words, it fosters problem-solving skill in well-structured domains.

Goal-based scenario is also likely to result in single-loop learning, although for slightly different reasons. A GBS contains an indexed database of contextual, procedural, and technical information related to a work problem. Trainees receive instruction and guidance in navigating through this database as they attempt to achieve their goal. Because a goal-based scenario operates on the assumption that trainees will accept rather than question the goal, assumptions, and information provided by the simulation, it is likely to result in single-loop learning. Therefore, GBS also enables trainees to apply the knowledge and skills they acquire during training to highly similar work problems; that is, it fosters problem-solving skill in well-structured domains.

Conversely, PBL and action learning are more likely to result in double-loop learning. In PBL and action learning, participants frame problems, select and access learning resources to gather information, and generate and test hypotheses about problem causes and solutions. These activities promote double-loop learning by involving trainees in the critical examination of a problem's underlying assumptions, procedures, and goals (Argyris, 1980; Raelin, 2000). Previous research has shown that individuals apply the problem-solving and cognitive skills that they acquire in PBL and action learning when they address subsequent ill-structured or unfamiliar work problems (Chang et al., 1995; Gallagher, 1997; Marsick, 1990b).

There is a subtle trade-off between PBL and action learning in relation to developing problem-solving skill. In problem-based learning, trainees generate multiple hypotheses about problem causes and solutions, develop an inquiry strategy to gather additional information, analyze data, affirm or revise hypotheses, and select and implement solutions. This process is called hypothetico-deductive reasoning and helps people develop schemata of certain types of problems (Barrows, 1994). Schemata are activated during problem solving and enable quick movement from the identification of a problem to the selection and implementation of solution procedures. Therefore, the instructional steps of PBL mirror the hypothetico-deductive reasoning process and the result of PBL is the development of schemata. An issue that emerges from this understanding is that it is possible that the use of prototypic problems in problem-based learning leads to errors in problem solving with less experienced professionals. Because less experienced individuals possess more superficial understandings of problem features, they have a tendency to incorrectly classify novel problems in the same category as ones they have encountered in training. Incorrect classification leads to the inappropriate activation of a schema and the incorrect selection of a solution (Barrows, 1994).

No evidence exists to suggest that this issue is a concern associated with action learning. One reason is that action learning is typically used with more experienced managers. Experienced managers generally possess fairly sophisticated schemata and are not as likely to incorrectly classify problems based on superficial features. A second reason is that action learning does not focus on prototypic problems as the basis for learning. Therefore, even if less experienced professionals did engage in action learning, they would be less likely to encounter superficially similar problems in practice and would be less likely to activate inappropriate schemata during problem solving.

Developing and Implementing Problem-based Approaches

Aside from problem-solving skill development, there are advantages and disadvantages associated with the four problem-based approaches in relation to developing and implementing professional development programs.

The development of any of the four problem-based approaches is a resource intensive undertaking. Case problems take a substantial amount of time and expertise to write. Case writers must conduct background research, consult subject matter experts, and synthesize case information. The extensive amount of time required to perform these case writing activities is frequently cited as a deterrent to using a problem-based approach (Chang et al., 1995).

Beyond the time concern, problem-based approaches that utilize computer technology, such as GBS and some CSAs, incur enormous costs in the development of multimedia resources and simulations. Researchers are working on content-rich tools and scenario template tools that allow materials and scenarios in computer-based simulations to be reused (Schank et al., 1993, p. 338). Until design tools such as these are developed, the use of computer-based instructional technology will be limited to professional development programs that possess extremely generous budgets and timelines.

Development is only one hurdle in designing a successful problem-based professional development program. Another hurdle is successfully implementing the problem-based program. Successful implementation depends on three factors. To begin with, the availability of time for training must be considered. While all problem-based approaches require greater amounts of training time than directive forms of instruction, some approaches require less time than others. The case study approach requires the shortest amount of training time. Most professional development programs devote from an hour to a half day on a case analysis. The goal-based scenario requires more training time. Simulations typically last from one to three days. Problem-based learning and action learning are more time intensive than the two previous approaches. PBL programs typically last from one to four weeks and action learning projects generally last from 3 to 12 months. Some program designers have experimented with condensed forms of PBL and action learning to diminish the time problem. However, Marsick (1990a) asserts that these condensed programs do not provide sufficient time for individuals to realize many of the benefits that can only come when a team grapples with a problem over a longer time period.

A second factor related to the successful implementation of a problem-based program is the cost associated with its training format and delivery system. The case study approach is fairly inexpensive to implement because it uses large groups and requires only one trainer and one classroom facility. Goal-based scenario, problem-based learning, and action learning are more costly because the approaches use smaller training groups and these groups each require a facilitator and facility in which to meet. Goal-based scenario carries the additional cost of computer support.

A third factor related to the successful implementation of a PBA is the skill of trainers. Convention dictates that trainers be experts in the technical domain under study. However, previous studies of problem-based approaches have shown that technical experts tend to be too directive in small group discussions and short-circuit the problem-solving activities and cognitive learning processes of trainees (Albanese & Mitchell, 1993). In programs that focus on problem-solving skill development, the effectiveness of a program is dependent on the trainer assuming a facilitative role (Gallagher, 1997). This role requires expertise in methods of reflection, group communication, listening, as well as individual and group problem-solving and learning processes (Bierema, 1998). Since facilitation is a new, and often difficult, responsibility for many trainers, training should be provided to help trainers enhance their proficiency in facilitation tools and techniques (Raelin, 2000).

Future Research of PBAs

Further research in four areas would deepen present understandings of problem-based approaches to professional development. First, further research of the role of independent learning activities in facilitating learning should be conducted. The case study approach is often the favorite choice of trainers because it requires the least amount of training time. In large part, this time saving is realized because trainees typically do not engage in independent learning activities in CSA. More needs to be known about the tradeoff between engagement in independent learning activities and the development of problem-solving and independent learning skills.

Second, further study of the facilitator role in PBAs is warranted. Areas for future research should include the influence of technical expertise in facilitating problem-solving groups, the role of cognitive and metacognitive guidance during group problem-solving, and the impact of facilitator training on trainers with varying levels of technical expertise.

Third, additional research on the influence of computer technology on group problem-solving activities needs to be conducted. Some professional development programs deliver PBAs through communication and multimedia technology, even though a substantial body of literature suggests that effective performance of problem-solving and decision-making tasks requires information rich media. Studies addressing the strengths and limitations of communication and multimedia technology for facilitating problem-solving activities would help clarify this disconnect between theory and practice.

Finally, most reports of problem-solving skill development in PBAs have been based on subjective self-reports of trainees and assessments of trainers. Finding objective ways to assess problem-solving skill is necessary to gain a more complete picture of the role of PBAs in promoting professional development.

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Workplace Learning Reviewed: Confronting the Rhetoric with Empirical Research

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There is considerable discrepancy between theory on workplace learning on the one hand, and views and actual developments in organizations on the other hand. Theories and concepts in this area seem quite remote from the needs of managers and workers. Research can contribute to reducing the distance between theory and practice if it provides indications about the ways in which actors can deal with the diversity of views and interests in organizing multiple learning programs.

Keywords: Workplace Learning, Organizations, Training

An abundance of ideas is launched about learning and training of workers in organizations. There appears to be a large discrepancy, however, between the 'stubborn' reality in HRD practice and current theories about learning, training, and organizing. Descriptive and explorative research into HRD practice more than once concludes that training and intentional learning occur rather infrequently. Learning and development processes happen less systematically and less consciously than assumed. There is also evidence that learning opportunities are divided rather unequally across the workforce, with managers enjoying relatively privileged positions. Newer ideas about learning in the workplace are not as widespread as some theorists would like. Dankbaar's (2000) research into the characteristics of organizations and their human-capital policies provides telling illustrations of these discrepancies. He investigated a number of working hypotheses, which were based on a thorough examination of theory and literature. His conclusion, however, is that empirical research cannot confirm most of these theoretical expectations.

Problem Statement: Issues around Work and Learning Programs

The discrepancy between HRD theory and practice is manifest in a large number of issues. This paper will confront some of the prevailing theories and ideas about learning in organizations with the growing body of empirical research in that field. The review centers on topics that are relevant to the relationship between work and learning programs.

Theorists, policy makers, and HRD professionals pay increasing attention to workplace learning. Managers and workers in organizations, however, do not seem to take great interest in that topic. To them, learning often equals course-based training. Moreover, it is quite difficult to explain the exact relevance of learning to important organizational issues (e.g., quality, innovation, motivation, stress). Not only does training receive more attention in organizations than workplace learning does, the systematic integration of work and learning programs is not more than a remote perspective to many companies.

Theory places high demands on learning. It is not just about changes in knowledge and skills, but should also comprise reflection on underlying norms and values (Wenger, 1998; Wildemeersch, 1998). Organizational actors hold many different views on learning, most of which are far less profound (Bolhuis, 2000). This large variety is hardly reflected in the literature, however.

A third topic that is discussed extensively is the urge to increasingly organize work and learning in groups (e.g., Senge, 1990; Watkins and Marsick, 1993; Wenger and Snyder, 2000). Although these ideas are usually supported verbally, not many organizations are actually living up to them (Dankbaar, 2000). Moreover, many companies experience contrary tendencies. For instance, the commercial services sector is increasingly characterized by individualization, while the health care sector rather seems prone to standardization. Developments in work, organization, and learning are more varied than expressed in the HRD literature.

The last issue concerns the different views and interests that actors hold in organizational change and learning processes. This multiplicity is often considered to cause these processes to run less successfully. Subsequent interventions are aimed at bringing all actors in line. The question is justified, however, whether this is a realistic option in view of organizational complexity. Would it not be more worthwhile to look for strategies that take into

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account the actual multiplicity?We refrain from arguing here that the advocated developments are not worth striving for. We do observe that these theoretical ideas are far from organizational reality, which makes their realization considerably more difficult.

The purpose of this paper is to outline a perspective for theory building and research that reduces the discrepancy between theory and practice. Of course there will always be a gap between theoretical ideas and practical realization, but currently the gap is definitely too wide.

The first part of this paper explores the available empirical research into the relationship between work and learning programs. After that, the possibilities offered by an actor-network approach are presented through a brief outline of its core ideas. To conclude, four crucial research themes will be put forward based on the idea of multiple learning programs. *(Note from the authors: Space constraints force us to present our literature review with only our key references. A fully referenced paper will be distributed at the paper session for those interested.)*

What do we know? Empirical Research into Work and Learning Programs

Recent years have seen an increasing amount of empirical research into corporate learning. We should like to bring forward four central topics from this research.

1. Tuning learning programs to the work and to the organization. This is a key topic in improving the quality of learning programs.
2. Work and learning in groups. This theme has become very popular for its perceived advantages in terms of results. Groups are often viewed as a good context for the integration of learning and work.
3. Learning programs in different work contexts. This topic is rather under-researched as yet, but may provide important clues for quality improvement of learning programs.
4. Views and perceptions of actors. This is a well-researched theme, although a broadening of its scope may be necessary for learning-program quality to improve.

In summary, these particular four topics were selected because they allow us to show that complete integration of learning and work is far more complicated in practice than is usually assumed in theory and, moreover, not always desirable in its pre-occupation with only one possible organizational form.

Tuning Learning Programs to the Work and to the Organization. The literature about the design of learning programs focuses strongly on procedures to tune the curriculum to problems and developments in the organization (Kessels, 1993; Bergenhenegouwen, Mooijman, and Tillema, 1998). Especially studies into the effectiveness of training in organizations pay a lot of attention to optimizing design instruments. For example, they emphasize conducting needs and task analyses, specifying learning goals, instructing trainers and coaches, and constructing evaluation instruments. Applying these instruments leads to a well structured and logically consistent design approach (Kessels, 1993). Many studies aim to further develop these methods and the underlying theories.

Empirical research shows that these methods are not used frequently in practice (Wognum, 1999). This is hardly surprising, since a great deal of implementation research has repeatedly indicated vast discrepancies between plans and practice as well. Moreover, the application of these methods does not contribute much to explaining training effectiveness (Kessels, 1993; Wognum, 1999; Van der Klink, 1999). Empirical research can find only modest support for the supposed impact of applying procedures and methods on the realization of learning effects.

Work and Learning in Groups. Groups and work teams have always been considered as contexts for employee development in literature on organizational development (French and Bell, 1995; Van der Zee, 1997; Brown and Keep, 1999). Over the last decade this topic has also become an object of concern in literature on the learning organization. Work is increasingly expected to be organized in teams. Furthermore, groups and work teams are increasingly considered to be strong learning environments (Watkins and Marsick, 1993; Tjepkema, Kessels, and Smit, 1999).

However, groups and teams as organizational forms turn out to be less prevalent in practice then predicted (Benders, 1999; Dankbaar, 2000). Moreover, empirical research provides little evidence for the high expectations concerning their performance, opportunities for participation, member satisfaction and motivation (Boot and Reynolds, 1997; Poutsma, 1998; Russ-Eft, Preskill, and Sleezer, 1997).

Primary production teams have not yet been well researched empirically (Hendry, 1996). There is more research about management teams (e.g., Burgoyne and Reynolds, 1997), interdisciplinary teams (e.g., Cooley, 1994), and temporary project groups or task forces. So far, however, empirical results sustaining the alleged learning potential of group work are scarce (Van Klaveren and Tom, 1995; Hoogerwerf, 1998; Van der Krogt, Vermulst, and Kerkhof, 1997; Willis and Boverie, 1998).

Learning Programs in Different Work Contexts. Two research traditions can be distinguished that deal with learning in different work contexts. The first one originates from a critique of the tayloristic organization. Other ways to organize work are sought, based on socio-technical design and semi-autonomous work teams. An important consideration is the limited learning potential of tayloristic organizations. Team work with relative autonomy is thought to offer considerably more learning opportunities. The second research tradition is concerned with knowledge work and knowledge-intensive organizations. The discussion here focuses on learning by well-educated workers, usually referred to as professionals. The core question is how to encourage these professionals to learn and make better use of their knowledge in organizational processes (e.g., Weggeman, 1997; Brugman, 1999). Interestingly, these two research traditions remain almost completely separated. It is still possible, however, to conclude that learning programs clearly differ from one work context to the other.

Few studies compare learning in different work contexts directly. Poell (1998) and Van der Krogt and Warmerdam (1997) found different learning practices to be related to different work contexts. Some research comparing tayloristic work vs. task groups shows different learning processes are associated with different work types (Davidson and Svedin, 1999; Onstenk, 1997; Agnew, Forrester, Hassard, and Procter, 1997). Comparing a range of single studies about learning programs in various occupations allows for the conclusion that they can be different (Warmerdam and Van den Berg, 1992; Feijen, 1993; Warmerdam, 1993; Verdonck, 1993; Osterman, 1995; Liebeskind, Oliver, Zucker, and Brewer, 1996; Dhondt, 1996; Onstenk, 1997; Filius and De Jong, 1998; Eraut, Alderton, Cole, and Senker, 1998; Grünewald, Moraal, Draus, Weiss, and Gnahs, 1998; Brugman, 1999; Kwakman, 1999; Whitfield, 2000).

Views and Perceptions of Actors. Recent empirical research tends to attach more importance to actor perceptions as an explanation for learning program effectiveness (Straka, 1999; Kwakman, 1999).

Wognum (1999) conducted an empirical study of 44 learning programs. She concluded that people's judgement about organizational alignment of an HRD intervention affected learning program effectiveness more profoundly than the actual alignment. Perceived alignment and perceived effectiveness were related, but actual alignment had little impact on effectiveness judgements.

Van der Klink (1999) studied the effectiveness of workplace training empirically. He found that training effectiveness is influenced much more by trainee characteristics than by the training itself. Trainee aptitude, experience, and motivation had the biggest impact on training effectiveness. Organizational characteristics, such as the behavior of managers and colleagues, were less influential. The characteristics of the training itself were found to have the least impact on effectiveness. Kwakman (1999) drew similar conclusions.

In his study of curriculum design strategies, Kessels (1993) pays a lot of attention to involving the various participants in the design and implementation of learning programs. He emphasizes the importance of realizing external curriculum consistency in order for learning programs to be effective. In other words, a learning program is more effective if managers, program designers, trainers and trainees share common opinions about its goals, strategies, and implementation.

Elements of a Conceptual Framework for Further Research

This review of empirical research shows some clear tendencies. The methods applied by training professionals do not contribute much to tuning learning programs to work, nor do they explain much of the variance in training effectiveness. Although most of the research in this domain focuses on the training professional, their actual impact turns out to be modest (certainly compared to the influence workers can exert in learning processes). An approach assuming that learning programs are organized by a network of actors, including training professionals and other actors, seems fruitful (Kessels, 1993; Van der Krogt, 1998).

Furthermore, there is little evidence to suggest that the organization of learning and work in groups is actually on the rise. The idea is supported, however, that social aspects of work are relevant to learning-program creation. There turns out to be a wide variety of social relations in organizing work and learning processes. Although individual learning and work frequently occur in contexts with other people, 'real' group work (cf. R&D teams) seems to be a highly demanding organizational form that is hard to realize for many companies (Poutsma, 1998). The diversity of relations among people in work configurations deserves more attention in further research, also in connection with learning-program creation.

In the same vein, the organization of work itself shows great diversity. One of the tendencies is increasing collaboration of workers, but developments towards individualization and standardization are also discernible (Den Boer and Hövels, 1999; Dankbaar, 2000). It could be worthwhile as well for further research to look into the significance of professions and craftsmanship in organizing work and production processes (Geurts and Hövels, 1994). There is a wide variety of developments in organizations, which should be examined in further research. Not all organizations experience the same tendencies, for instance, the integration of learning and work, to the same degree (Dankbaar, 2000).

Although some empirical evidence suggests that different learning programs exist in different work contexts, the relationship between work type and learning programs is still ambiguous. Other factors also explain which learning programs are organized in different work types, for instance, the views and perceptions of actors. In short, the relationship is a highly ambiguous and complex one (Di Bella, Nevis, and Gould, 1996; Davidson and Svedin, 1999), deserving of further research.

Several elements of a conceptual framework for further research into the relationship between work and learning programs have thus been encountered. Other than instrumental approaches to study learning in work organizations are needed (cf. Kessels, 1996; Brown and Keep, 1999; Ellström, 1999; Koot and Verweel, 1999). Further integration of learning and work is one option, but other ways to tune learning to work should be allowed for as well. Organizational reality is too complex to be inspired by one single ideal. HRD professionals, managers, and workers all have their own ideas and interests. The way in which they organize their interactions when they create learning programs depends upon their particular organizational context. The actor-network approach that we would like to present next can be used as a framework for further research that allows for such diversity.

A Brief Outline of the Actor-Network Approach. The learning-network theory places great emphasis on networks of actors, who create learning groups and learning programs with each other (Van der Krogt, 1998; Poell, Chivers, Van der Krogt, and Wildemeersch, 2000). Relevant actors are workers, managers, HRD professionals, trade unions, workers' associations, external training providers, and so forth. These actors can organize learning-program creation in very different ways. It is a process that takes place in the context of the organization. Over the course of time, various worker training and learning activities have been conducted, thus gradually developing into a learning structure. Every organization can be characterized by a content and organizational structure, material learning conditions, and a learning climate. This learning structure provides the starting point for actors to undertake new learning activities. They form a learning group together and carry out activities to create a learning program.

Learning Programs in Contexts: Similarities and Discrepancies. Four types of context are distinguished in the actor-network approach, namely four types of work and four corresponding learning structures. Furthermore, four types of learning program are distinguished, that is, four different ways for actors to create a learning group and program. The relationships between contexts (work and learning structure) and learning programs is summarized in the matrix presented in Figure 1.

Contexts (Work and Learning Structure)	Learning Programs			
	Contractual, Individually oriented	Regulated, Task oriented	Organic, Problem oriented	Innovative, Methodically oriented
Individual work, Liberal learning structure	X			
Task work, Vertical learning structure		X		
Group work, Horizontal learning structure			X	
Professional work, External learning structure				X

Figure 1. Similarities and Discrepancies between Learning Programs and Contexts (Poell and Van der Krogt, 2000a)

Contexts are listed in vertical order, learning programs in horizontal order. The x-marks on the diagonal indicate the learning programs that correspond, theoretically at least, with their context. In these learning programs actors act according to the context. The unmarked combinations off the diagonal refer to discrepancies, that is, learning programs exhibiting characteristics that do not correspond with their context. Learning groups produce their own dynamics, because actors develop their own action patterns together. Thus learning groups and programs come into being that are specific to this set of actors and exhibit discrepancies with the context.

Multiple Learning Programs. This actor-network approach shows how similarities as well as discrepancies between work and learning programs can be expected. Work is influential, but especially actors can individually and collectively leave their mark on learning programs. Learning actors give their own (joint) specific interpretation to work and learning structures. Moreover, the context is not all-determining and leaves room for the actors to act according to their own views and interests.

This complicated nature of the relationship between work and learning programs can be expressed in the basic assumption that learning programs in organizations have a multiple character. Learning programs are a reflection both of the context (including the work) and of the learning group (the specific set of actors). Furthermore, learning programs are partly a reflection of each of the actors, who have made their own specific contribution to creating the learning program. To summarize, three factors influence the content and organization of learning programs:

1. The context of work and learning structure, and their perception and interpretation by the actors.
2. The creation process by the learning group, producing the specific character of the actor configuration.
3. The views, opinions, and interests of the separate actors.

The model presented in Figure 2 relates these factors to each other. A more elaborate account of the actor-network approach is provided in Poell and Van der Krogt (2000a).

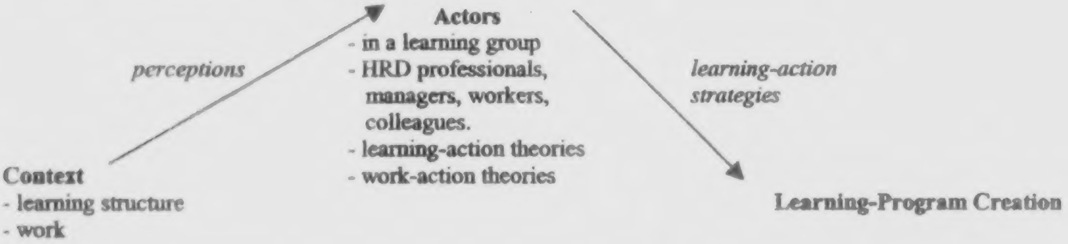

Figure 2. Learning-Program Creation by a ILarning Group of Actors in their Context

Topics for Further Research into Multiple Learning Programs

Further research into work and learning programs from an actor-network approach should emphasize the following four topics:

1. *Actors:* research into the diversity of learning-action theories and strategies of various actors.
2. *Learning programs:* comparative research into the content and organization of learning programs.
3. *Contexts of learning programs:* research into learning programs in different contexts of work and learning structure.
4. *Research strategies:* action research and field experiments.

Empirical research along these lines will make it easier to bridge the gap between theory and practice concerning work and learning programs.

Learning-Action Theories and Strategies of Actors. Actors and the learning groups they create are at the core of the learning-network approach. They constitute an important factor in explaining the diversity of learning programs in organizations. How actors collaborate in a learning group is largely determined by their views, by the degree of similarity among these, and by the extent to which these change during the interaction process.

Recently, theory and practice have started paying more attention to managing diversity among actors in organizations (Glastra, 1999; Van der Zee, 1999; De Dreu, 1999). The idea is that variety is inevitable and can even be considered positive. The question is how to deal with this diversity, which is also relevant to learning-program creation.

The actor-network approach and the concept of multiple learning programs offer more room to observe inconsistency, tension, and conflict arising from learning-program creation. They also anticipate a large variety of possible learning programs. Of course there will also be consensus, but learning programs in organizations are not usually the object of complete agreement among actors.

The learning-network theory approaches actor views on the organization of learning programs as a type of action theory (cf. Van der Krogt and Vermulst, 2000). In the case of learning activities, these views are referred to as a learning-action theory. Research should focus on the differences and similarities among actors in terms of their learning-action theories, their perceptions of learning structures, and their learning-action strategies. This comprises describing the differences and similarities as well as analyzing their determinants and effects.

Learning-Action Theories and Perceptions of Learning Structure. The first question would be in what ways actors perceive the learning structure of their organization and what dimensions they distinguish in the learning structure. Besides looking at the perception of the formal learning structure, it would be worthwhile to analyze the images that actors have of their learning opportunities in the workplace (Verdonck, 1993; Onstenk, 1997).

Research has shown clearly that managers and workers perceive the learning structure in the same organization differently (Den Boer and Hövels, 1999; Van der Krogt and Vermulst, 2000). In this connection the perceptions of HRD professionals are equally interesting, as well as how they differ from other actors' perceptions.

A related question is to what extent actor views and opinions on learning (that is, their learning-action theories) are related to their learning perceptions. It should be taken into account that managers and workers hardly think about training, let alone about learning. Nor can it be ruled out that they may be quite skeptical about the relevance of learning programs to their work.

Learning-Action Strategies. What do the various actors do in the process of learning-program creation? What differences and similarities are there between the learning activities of the various actors? How systematically do actors undertake these learning activities? To what extent can patterns be discerned in their actions, so that their activities can be regarded as learning-action strategies? (Tijmensen, in preparation).

It is entirely possible that learning activities of managers and workers show little coherence or system. HRD professionals and trainers are more likely to act according to systematic patterns when creating learning programs (Van der Krogt, Vermulst, and Ter Woerds, 1993). Furthermore, research conducted by Poell (1998) and Tijmensen (in preparation) shows that learning-action strategies of HRD professionals, managers, and workers do not usually correspond with each other.

Views and Strategies of Actors in Learning Groups. Actors form temporary collaborations (so-called learning groups) to create a learning program. An important question deals with the extent to which views and strategies of actors in the same learning group correspond. How do actors experience such differences and how do they react to these? Do they try to point out the differences and discuss them? How do differences and similarities between actors (especially their perceptions and strategies) influence the process and outcomes of learning-program creation?

Another issue is to what degree actors change their learning-action strategies over time. Do actors adjust their strategies to other actors in the learning group? Especially relevant are the changes in the strategy of the HRD professional in reaction to the strategy of workers (cf. Poell and Chivers, 1999). Is there formative evaluation during learning-program creation? Does this evaluation have an impact on the differences and similarities between the actors? Do actors adjust their perceptions and strategies on the basis of formative evaluation?

Learning-Action Theories in Relation to Work-Action Theories. Workers learn about their work. This learning an be understood as the development of work-action theories. An interesting question, then, is whether the work-action theories of actors are related to their learning-action theories and strategies. Do actors look upon the organization of work in the same way as they look upon learning-program creation, or are these subject to different principles?

Organization and Content Profile of Learning Programs. An important assumption of the learning-network theory is that learning programs can differ strongly from each other in terms of their organization and content profile. Four ideal types of learning program have been distinguished, which can be presented graphically as four corners of a three-dimensional space. Figure 3 makes it plausible, however, that many other (hybrid) types of learning program can be organized.

Learning Programs Differ along Three Dimensions. The core question here is to what extent learning programs are similar to the ideal types. In other words, where in the three-dimensional space can a specific learning program be situated? For example, is it vertical rather than liberal? What elements of the different ideal types feature most strikingly in this particular learning program?

A second question concerns the relationships between the organization of learning programs and their content profile. For instance, do learning programs that deal with different themes also have a different organizational structure? Or can a particular content profile be connected to various types of learning group?

Learning Programs in Phases. Three phases can be distinguished in learning-program creation: orientation, learning, continuation (Poell and Van der Krogt, 2000b). An interesting question is how actors phase different learning programs. Do all phases actually occur? To which phase do the participants pay the most attention?

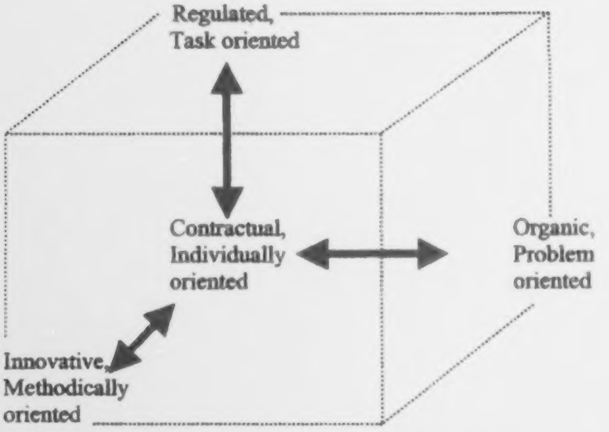

Figure 3. Various Types of Learning Program in a Three-Dimensional Space

Individual Learning Paths and Joint Learning Programs. Learning programs are created by learning groups of separate actors. The learning paths of individual participants are expected to gain momentum from participating in a joint learning program. The question, then, is to what extent joint learning programs influence individual learning paths. Also, how exactly do different types of learning program have an impact on these individual learning paths?

Learning Programs in Different Contexts. Learning programs can reflect the existing context or they can add to them. Learning programs can show similarities and discrepancies to the context in which actors create them. The matrix in Figure 1 presents the possible relationships between contexts and learning programs. The core questions here deal with the relationship between work and learning programs and with the relationship between the existing learning structure and learning programs.

Learning Programs in Different and Changing Organizations. Research in this area should tackle learning programs and learning groups in different types of occupation, including, for instance, skilled workers and professionals (Den Boer and Hövels, 1999; Kwakman, 1999; Tijmensen, in preparation). Learning-program creation supporting organizational changes is an equally interesting area of research (cf. Hoogerwerf, 1998). Especially topical are the ongoing attempts to organize work in groups, both from a socio-technical perspective and in more professional occupations (e.g., teachers, IT consultants, accountants, HRD professionals). This research could build on earlier work done on the organization of work-related learning projects (Poell, 1998).

Learning Programs in Relation to Existing Learning Structures. This research topic is concerned with the relationship between learning programs and the existing learning structure of an organization. Some work has been done to study the learning climate of an organization (Van Moorsel and Wildemeersch, 1998) or the learning potential of work (Onstenk, 1997). An interesting question could be whether, for example, centrally organized learning groups always create a controlling learning climate. And, for instance, does work with a high learning potential necessarily produce horizontal learning groups, or can it yield various types?

Action Research and Field Experiments. All topics that were mentioned can be analyzed using descriptive and explanatory research, both quantitatively and qualitatively. In order to develop strategies and methods for the various actors, field experiments and action research offer interesting opportunities (cf. Van der Krogt, 1997). The concept of multiple learning programs contains several dimensions that actors can explore to improve their learning strategies, paths, and programs. It brings ideas about adjusting learning programs both to the work context and to the specific learning group. It challenges all actors in a learning group to find a way for each of them to participate according to their own views and capabilities.

Various theoretically and empirically validated models have been developed for actor strategies in learning-program creation (Poell, Van der Krogt, and Wildemeersch, 1999; Poell and Van der Krogt, 1999; Poell and Van der Krogt, 2000b). Different actors, especially HRD professionals, learning workers, and managers, can use these models to gain insight into the learning strategy they tend to employ in practice. Working with the models also offers the opportunity to come to terms with the fact that various actors employ different learning strategies. Using the models as a frame of reference helps to facilitate a dialogue among learning-program participants. Furthermore, actors can use the models to think through different alternatives that are available in creating a learning program. During the course of a learning program, the models can also be used as a formative evaluation instrument. It can help actors in the learning group to figure out which options are available for the remainder of the learning program, both in terms of organizing the learning group and in determining the content profile.

Action research into this kind of field experiment enables organizations to organize their learning programs more systematically and to make their learning-action theories more explicit. At the same time, researchers (in a consulting or counseling role) can use these experiments to test the models, to further refine them, and to make them more concretely applicable. Testing is possible because actors use the theoretical models to develop better learning-action theories for themselves. Thus they develop new notions about learning-program creation and they are better able to tailor-make their own learning programs.

Especially action research seems suitable to get a grip on the phenomenon of learning-program creation, which is difficult to grasp and strongly depends on perceptions and interpretations of those concerned. At the same time, doing action research is crucial preliminary work to developing more structured and standardized diagnostic instruments and methodical support for learning-program creation. This can be done by refining the theoretical models on the basis of data collected in empirical case studies. The question remains, however, to what extent theoretical models should be made into standardized instruments (Poell, Van der Krogt and Wildemeersch, in press). If this exercise were taken too far, there could be a danger of losing sight of the crucial relationships between learning-program creation, the actors in the learning group, and the context of work and learning structure.

Summary

This paper started with the observation of considerable discrepancy between theory on the one hand, and views and developments in organizations on the other hand. The review of empirical research into workplace learning programs sustains that observation. Theories and concepts are quite remote from actual developments in companies and from the views and needs of managers and workers.

It is our belief that research into the four topics that were elaborated upon can contribute to reducing the distance between theory and practice. Multiplicity of learning programs should be a core assumption. Research should provide indications about the ways in which actors can deal with the diversity of views and interests in organizing learning programs. This should inspire them to make their own views and learning strategies more explicit and more attuned. Specific developments (e.g., towards group work or team learning) are not a priori more (or less) desirable than other possible lines of change. To conclude, multiple research strategies including action research and field experiments should be applied to produce more practically relevant knowledge.

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A Study of Informal Learning in the Context of Decision-Making

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People3

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The purpose of this study was to acquire greater insight into how managers acquire informal learning while they are involved in making decisions. Through better understanding of the parallel processes of thinking and action by which learning and decision-making occur, opportunities were found for the organization to better support and facilitate such learning in the future.

Keywords: Informal Learning, Decision-Making, Experience

Problem and Purpose of Study

This case study was conducted among managers at the divisional headquarters of MedCo (pseudonym), a European based pharmaceutical company that manufactures and markets prescription drugs for pharmacies and hospitals. The market sector was changing rapidly as hospitals became units within large centralized purchasing structures. Contract and price negotiation was becoming centralized at more senior levels and companies like MedCo could expect up to thirty per cent of their business to be in question at the time of renegotiations. Profit margins and costs were increasingly squeezed to ensure that contract bids remained competitive. Simultaneously, the patent protection of some products was nearing an end. Retention of market share was dependent on innovative products, excellence in customer relations and new ways of doing business. The changing marketplace stimulated a need for a higher managerial capability to propose and implement ways of aggressively retaining market share. As a consequence, the Company judged employee ability and potential more critically while creating opportunities for those with aptitude and confidence to make fast, well founded recommendations and decisions.

Watkins (1995) has noted that there is an "increasing demand for learning at work, coupled with an emphasis on more informal, self-directed learning practices" in addition to the more formal training interventions. Volpe and Marsick (1999. p.4) define informal learning as "learning that is predominantly unstructured, experiential and noninstitutional". This study is based on the assumption that managers in today's rapidly changing organizations confront extensive opportunities for informal learning in the course of day-to-day decision making. Heirs (1986, p. 18) concluded that "the professional manager will now confront far more occasions when a right or wrong decision is crucial than were faced by a person in a similar position thirty or fifty years ago". These demands are attributed to the "accelerated rate of change" which "is bound to mean that there will be more make-or-break decisions to be made within the timeframe of one career". Heirs notes: "Paradoxically, the more pressing our immediate problems and the more rapidly the waves of crisis and change break upon us, the more we need to find the time and energy to raise our sights to look further ahead into the future" (ibid).

Heirs' description of the types of demands that managers face remains true in the new century. Wise and Morrison (2000) describe the business context. It is one in which to make "use of the internet to facilitate commerce among companies promises vast benefits: dramatically reduced costs, greater access to buyers and sellers, improved marketplace liquidity, and a whole new array of efficient and flexible transaction methods". However, the authors caution, "if the benefits are clear, the paths to achieving them are anything but." (p. 88) Although the context for managerial decision-making is constantly changing, the need for managers to make decisions by evaluating risk and projecting a future for which there is little or no historical data, remains an unresolved dilemma.

This study assumes that organizational support, through similarity of values (Klein and Sorra, 1996); alignment of role (Slappendel, 1996), and freedom to take innovative action (Watkins, Ellinger and Valentine, 1999), is conducive to effective decision-making and learning constructively from experience. It is also assumed

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that decisions are based on making meaning of information, and personal and shared experience. It is through the lessons of experience and through dialogue with others that managers come to make use of information more effectively (Weick, 1995). If, as Ackoff (1978) writes, "to make a decision is to select a solution" (p. 193), the process of using information and past experience to understand a situation and create an actionable solution might be considered to parallel the process of learning.

The three research questions for the study were: (1) What strategies and activities led to informal learning as managers made and executed decisions? (2) How did the individual translate those strategies and activities into learning? (3) In what ways did the organization facilitate or impede learning? The questions allowed further research into the "pervasive theme" discovered by Marsick, Volpe and Watkins (1999) in reviewing studies of informal learning. The authors comment that in the work environment: "what appears to be most significant is how individuals in changing or challenging circumstances perceive their work context and how they subsequently decide what they need to learn and how they should go about learning in informal ways" (p. 80).

Theoretical Framework

A literature review was conducted to provide direction and a conceptual framework for the study. The areas examined were decision-making theory, informal learning theory and strategies, self-directed learning, and gender difference in learning. Others have researched informal learning (Zemke, 1985; McCall, Lombardo and Morrison, 1988) but none examined how middle managers learn through on-the-job decision-making.

The theoretical framework drew from models of decision making, learning from experience, and change processes. The literature profiles six "schools" of decision making: optimizing (e.g. Kepner and Tregoe, 1981), satisficing (e.g. Simon, 1965), incrementalism (e.g. Lindblom, 1959), intuition (e.g. Mintzberg, 1994), chaos (e.g. Wheatley, 1992), and phenomenology (e.g. Sloan, 1996). The classical school depicts decision-making in terms of an informed rational selection process. Satisficing offers a degree of rational pragmatism, accepting that there are limitations of resources, particularly time, to be deployed on the process and accessability to information. Incrementalism, while remaining a rational process, acknowledges the need for emotional security by offering additional opportunities for pragmatism. Commitment is only made to the extent necessary to take action, creating the option of determining next steps on seeing the outcome of a first stage. Intuition further acknowledges the need for emotional comfort by allowing emotional gut feel into the decision making process, attributing quality of decision-making to a complex multiplicity of past experiences and values that may not be open to rational consideration but which provide an emotional driving force for action. Chaos replaces mechanistic human determinism as the thrust for decision-making with an understanding of natural forces which will predetermine the likely success of different potential outcomes. Phenomenology relies on emotional and values-based criteria for selecting a course of action that meets the needs of the situation.

Decision-making, by virtue of its action-orientation, provides the opportunity for creating experiences that lead to informal learning. All find experience, planned or unplanned, action or interaction, to be the source of learning. Mumford (1993) suggests that work provides the experience from which learning is acquired. Kolb (1984) and Cell (1984) describe a cyclical process of learning through reflection. Mezirow (1990) also recognizes reflection as integral to learning but is more open to planning, action and reflection occurring simultaneously rather than in a linear cycle. In his view, it is through critical reflection, the questioning of assumptions, that new meaning is generated. All see learning as related to action. Cell emphasizes changes in beliefs as the outcome of learning whereas Mezirow and Mumford view action as the direct outcome of learning. Kolb includes in his definition of action, testing, or taking action in order to find out what happens and therefore in order to learn.

The Boud and Walker (1993) model of learning through reflective experience provides a basis for the range of types of learning found in the literature. The model acknowledges the non-linear iterative nature of the learning process and the importance of context as a trigger for and an influence on the nature of an experience. The key components of the model are noticing an instigator or trigger for action, arising from a gap between the desired state and current state. As preparation is made to take action, experience begins to occur through taking analysis of the milieu, past experience and knowledge of the learner, and skills and learning strategies that help assess and respond to a situational trigger.

During the experience, the learner is aware of a gap between expectations and actual occurrence. By noticing, the opportunity arises for intervention, taking action to remedy the gap, and at the same time, reflection occurs on how well the intervention working and if not, personal experience and skills are drawn upon to react and, if appropriate, redesign. After action has been taken, reflection occurs in the form of recalling the experience, making a post-experience reevaluation with the benefit of insights into the outcome, and a review of both rational and emotional responses.

The Boud and Walker (1993) model provided a conceptual framework from which analytic categories were identified to assist with coding. Such key words were listed as "preparation", "data gathering", "prior experience", "experience", "reflection in action", and "critical reflection". These key words were integrated into a list of coding categories.

Methodology

The research design was a case study using qualitative data collected by interviewing a sample of managers at MedCo about critical incidents related to decision making and learning. Documents were also examined.

The sample of 26 was selected from among the 48 corporate senior management and their direct reports who were considered "satisfactory performers." For the 48, performance evaluation data were examined. It was assumed that satisfactory performers were more likely to be able to demonstrate success or achievement from learning that could be useful for sharing with others. As far as is possible in a predominantly white male environment of 40 to 45 year old managers, a mix of people of different gender (7 women, 19 men), age (between 32 and 53) and race (23 Caucasian, 2 African Americans and 1 Asian Pacific) were selected. The management sample consisted of either managerial professionals, qualified to Ph.D. or Masters degree standard, or managers who had learned their expertise on the job. The final sample comprised members of all the departments of the U.S. commercial headquarters: Communications, Finance, Marketing and Sales, Quality and Regulatory Affairs, Human Resources, Facilities, Information Technology and Logistics. The selected research candidates were then approached and asked if they would be willing to participate and all said they would. A letter was sent to each describing the process, and the terms of confidentiality including recourse to the university sponsor in an agreement form which each duly signed.

Managers were asked to identify critical incidents, that is, key decisions in which they had been involved and to discuss what learning they drew upon in making those decisions. Then they were asked to reflect on the decision and determine what they learned from making and possibly implementing the decision. This process provided a context for examining people's learning experiences (a decision they made), sources and strategies for learning (formal and informal), and reflection on the situation to consolidate learning to date.

The design originally included a separate critical incident questionnaire, but limited data collected in this way in the first two interviews prompted the researcher to incorporate the critical incidents into the interviews. Partially structured interviews were conducted at the headquarters location. Pilot interviews were first conducted at the same facility with members of a contracted facilities group in order to field test the research instruments. Interviews were taped for transcription and notes taken to identify contextual factors, body language, and other aspects not covered in the interview; on completion the tapes were transcribed and the transcripts provided the basis for analysis.

Data collected from the interviews were transcribed and reviewed to explore issues relating to learning that impacts decision making and learning arising from critical reflection on the decision making process. A coding process was developed to analyze transcripts. Themes were identified in the first round of analysis, including the two areas of coding which were anticipated: types of learning outcomes and methods of acquiring learning. These themes were broken down further against the categories determined in the literature along with the emerging themes and issues. Units of data consisted of one or more sentences taken from a data source, primarily the interview transcripts. The appropriate labeling codes, words or phrases, were placed in the margin of the document to indicate a relevant unit of data.

Interviewee responses, drawn from transcripts or critical incident responses, were inserted into an electronic index and then a search was conducted to identify the range of responses around a particular theme. Further analysis was conducted to determine whether there were similar responses according to other criteria, such as gender or decision type.

The data were synthesized by comparing and contrasting the data sources. The researcher sought to interpret the findings, in relation to the expectations suggested by the literature and according to trends manifested through the analysis. To synthesize, it was necessary to organize the data to reflect themes and patterns. For organizational purposes, each of the categories was sorted within the themes defined in the literature and transferred to a matrix or continuum, the most relevant of which are included in the interpretations chapter of this study. With the completion of the matrix or continuum, conclusions could be formulated and recommendations developed for current practice at MedCo for creating learning opportunities which may improve decision making, and for future research.

Findings

Fifty-one critical incidents were gathered through interviews with twenty-six participants. In all of the narratives, the decision made by the individual was related to elements of the milieu or organizational context. His or her stated intention was uniformly to make a decision or get a result. Learning was generally a subconscious process that occurred in parallel. Learning involved a combination of affect, values and cognitive thinking.:

Eleven of the critical incidents examined reorganization decisions. Seven critical incidents examined the selection of a vendor through comparison with other vendors or in-house resources. Six of the critical incidents told of employee retention or termination decisions. Other decisions included personal career choices, cost cutting exercises, product launches, introductions of management information systems, pricing and other offerings to customers, and mergers and alliances. The "vendor selection" type of decision involved primarily cognitive and rational thinking on behalf of the proponent of the decision, but some challenging of others' paradigms to encourage them to let go of what seemed intuitively accurate. An example was one manager's decision to add employees to her facilities department, despite pressure from the organization to reduce numbers. Her rationale was that she could reduce costs and improve service standards. Through a substantive preparation process which included attending a national conference on the subject of outsourcing, she came to understand that senior management was only supportive of outsourcing because of an assumption that it was less costly than directly employing people. By contrast, practitioners in facilities management had little to say in favor of it. The manager gained the confidence to make the change from outsourcing to adding internal headcount and justified it by reducing cost and improving responsiveness. Like seventeen other participants, she demonstrated a preparation process that was reminiscent of the autonomous, goal-driven self-directed learner. By networking with others in facilities management, she had gathered supporting data that enabled her to question the assumptions that had led to outsourcing and make a persuasive case for change. Throughout the process, she reflected critically on the organization's position and by doing so, she was able to think creatively about other options, building for herself the case that she would use to sway a biased senior management perspective.

Seventeen decisions were more personal and autonomous, rather than organizational in nature. These included personal career choices, and recruitment and termination of employees. Three decisions were to terminate a subordinate and, in contrast with policy decisions, there was little intentional learning in preparation for the decision. In another two decisions, the task was to reverse the decision made by the immediate manager's boss to promote individuals beyond their level of competence. This left the immediate bosses with the chore of attempting to make a decision, to which they did not agree, successful while also trying to have the decision reversed.

Such decisions were clearly beyond the scope of rational thinking. Respect, fairness and "what if it were me?" considerations caused reevaluation before and after making the decisions. There was also anger and frustration which led to trust issues and conflict. A learning outcome for these managers was to understand better the relationship between their own style and behaviors with the outcome of the situation and to consider how to handle such situations differently in the future. An extreme response from one manager ensued from the emotional turmoil of trying unsuccessfully to acclimatize, and from later having to fire an individual appointed from outside the organization. He has not recruited externally since that incident of over fifteen years ago. In one case, a manager who was about to fire an employee described the value of having the human resources manager question his decision and encourage him to try more in terms of giving feedback, coaching, and providing more time for the individual to be successful. Although by doing so he did not change his mind, he was glad to have tested his supposition further and to have greater certainty that the decision was the ethically correct decision, and was implemented in a way that supported the value of fairness. On reflection, he realized that he needed to include values-based assessment of his actions in other decisions that he made.

At the other extreme from the more autonomous, personal decisions were those of a broader policy nature. A common policy decision was reorganization. Four critical incidents reported mixed views when considering its implementation. Five incidents described sales reorganization issues that emanated after a successful planning process that examined such facts as quantitative data that helped determine how to realign sales people with major customers geographically. The restructuring was agreed upon through a lengthy consensus-building process, involving the key people in the organization. There were some differences in values between those who preferred total confidentiality to those who would have liked more openness, but these differences were less problematic than the post-decision problems on implementation. One participant felt that there was no alternative to how the implementation occurred although he accepted that business might have been lost through lack of training of the sales force in their new customer-aligned roles. Two others held strong opinions that the problem had been flagged, ignored and resulted in backtracking and unnecessary loss of business to the competition. The planning process had been similar to that of the classical optimizing approach, having involved a task force and multiple data collection and evaluation. The missing link was that people who had not worked with large accounts before lacked the experiential basis to realize the scope and the nature of giving this task to sales managers and representatives.

By attending to feelings on reevaluation, varying degrees of disappointment were expressed, but those who foresaw the problem wished that they could have communicated it in a way that would have had more influence. It was apparent that an optimizing approach to decision-making had been impossible because facts did not provide the intuitive insights of experience. The managers' own conclusions were that learning in this context of larger-scale change inevitably required experience that would normally have been gained in their environment through a pilot program or a work assignment in the area of lower expertise. Without that, they had to take the higher risk and discomfort of learning through trial and error.

From the findings it was clear that decisions ranged the spectrum from serious micro, individual decisions to broader wider impacting macro-decisions primarily on the deployment of corporate resources.

The first research question (What strategies and activities led to informal learning as managers made and executed decisions?) highlighted an array of innovative but subconscious learning strategies and activities. The personal decision was more likely to raise conflicting emotions in reconciling personal values of right and wrong with achieving a desired goal. The learning experiences in these cases were through observation, situation analysis, trial and error, seeking advice from mentors, dialogue, reflecting critically on assumptions, and learning from mistakes. The policy decisions involved asking and listening, data gathering from books, networks and the internet, making presentations, comparing options, conceptualizing, task force consensus building, strategizing, data analysis, experimentation, project-scoping, innovative "skunkworking", constructive feedback, and seeking expert advice.

In response to the second research question (how did the individual translate those strategies and activities into learning?), there was also a difference in emphasis between the stages of learning in a personal decision and a policy decision. The personal decisions received less attention in terms of preparation. Those who were aware of de-emphasizing preparation in favor of action, attributed it to not having to explain the decision to others. In the policy arena, managers were more likely to prepare, get others' buy in and make a persuasive business case to gain approval of their preferred course of action. However, preparation was only as effective as the prior experience and insights that a manager brought to the situation. Effectiveness was assessed through the ease with which adjustments could be made during implementation, and the combined fulfillment of rational business needs with moral and emotional needs. In both cases, learning occurred through the execution and experience of making and implementing the decision. This learning was on two plains. One was that of result achieved versus that anticipated. A gap was a trigger for learning by reflecting on what was going wrong and incrementally attempting to remedy the situation and more substantively, determining what would be a more appropriate action in future similar situations. The other plain was the contextual learning, frequently arising through attention to feelings, about systems, individuals, roles, values, and organizational culture.

The third research question (in what ways did the organization facilitate or impede learning?) was answered both directly as participants discussed their more general perceptions of the organization, and also indirectly as they discussed the impacts of organizational culture upon their decision-making incidents. In direct response, some wished for more training programs and international communication from which to learn, while others felt that they could learn more through the opportunities that the organization provided for improvement, innovation and extension of personal responsibilities. Indirect responses showed that the female participants found that they had more to learn about how to be assertive, gain confidence and ensure that senior management listened to them. The Marketing and Sales group seemed most cohesive in their understanding of the expectations of the organization. They were the longest-serving team and perceived by others to have power. They described some mature approaches to managing consensus, creating buy-in among their subordinates and making the case for change. Others showed more conflict and difficulty in reconciling corporate demands with the constraints they perceived of working in a more matrix-type structure. These organizational experiences were formational for new and experienced managers, alike. A common theme was that the organization was not going to change its culture and so survival and personal growth would require the individual to adapt and if necessary, conform.

Interpretation

The findings were examined using the Boud and Walker (1993) model of reflective learning from experience, both intentional and incidental. The model incorporates three stages of learning: preparation, experience and reflective processes.

Preparation was most frequently described in a way that fitted more with intentional learning. In the critical incidents depicting policy decisions and in many personal decisions, participants described themselves or observed others preparing to make a decision and later preparing to implement it. They sought to learn enough through data gathering to confirm a hypothesis based on past experience or create options emanating from the situation analysis. Information gathering was found to take the form of a goal-directed learning exercise. Prior learning was drawn upon, primarily intentionally where similar experiences had been encountered, but also incidentally, where the lessons were now drawn from multiple, cumulative and unrelated experiences. Incidental learning at the preparation stage provided the basis for adaptability, and the capability to react and create a new path as circumstances changed. Intentional and incidental learning were often iterative, each providing an outcome that provided the basis for higher capability and a richer learning experience.

New areas of learning emerged and this was more prevalent during the *experience* than it was during preparation. Such learning was more incidental in nature. The task of differentiating intentional informal learning from incidental learning proved challenging. The two occurred simultaneously and learners were rarely conscious of seeking to learn or acquiring learning. Their mission was task related: to gather information to make a decision and to achieve a result, attributed to the organization's need for outputs but not to learning, as such.

Experience often led to a process of noticing that a discrepancy existed between what was happening versus what was expected or what could be. In turn, this led to action. The experience stage was not easily differentiated from the previous stage of preparation. It was found that the activities involved in preparation were themselves an active experience. Participants described ways that they reacted to new information, and these reactions were reminiscent of reflection in action, checking that the planned or prescribed approach was still appropriate. If not, they described how they found another method, as a means of ensuring responsiveness at times of change.

Adaptability was a skill that grew with new experience. Incidental learning contained more elements of surprise and risk in reaction to an unexpected trigger. Intentional learning, although goal-directed was not a controlled process. Outcomes might differ from the plan and this provided the basis for double loop learning where the context and the what and why came in to more question than the how.

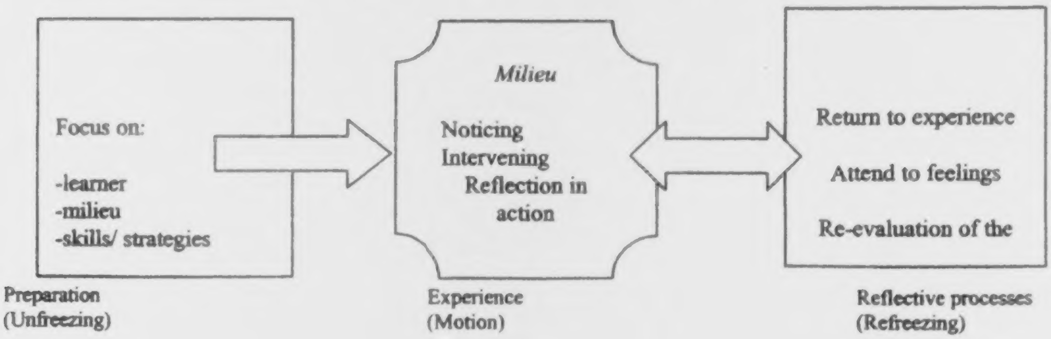
Throughout the decision making process, the implementation process, and also after the event was completed, *reflective processes* were at work. For some this was an intentional process with clear methods of analysis and evaluation. For others, it happened in response to feedback that there was something right and learning was reinforced, or something was wrong and something new was learned at the time and more frequently in retrospect with the benefit of hindsight. In such cases, the new perspective was one that could be taken forward as an experience in itself. Reflection involved attending to feelings and from this, new mental models were formed. The reframing of how the world operated and how to interact more appropriately with the world often led to recognition of, and shifts in, personal values and priorities. From these came revised formulae for handling similar experiences in the future.

Linking Decision Making to Learning from Experience

Parallels can be found between the Boud and Walker (1993) three-stage model and the Lewin (1951) model of change. Lewin focused primarily on the stage of organizational change, i.e. "unfreezing", "moving" and "refreezing". These stages are inserted into the Boud and Walker (1993) model and shown in Figure 1. In this study, Lewin's model of change was used to relate the change process of decision-making to the learning process. In the learning process, Boud and Walker (1993) found that reflection occurred in preparing for a situation, during the experience itself, in making meaning of the experience, and when determining future action. It was not always a conscious process; it balanced rational with affect, and there were barriers to learning and to acting upon learning. Cell (1998, p. 40) refers to "received learning" or beliefs that form a lens by which we react to new circumstances. It occurs at the time of the reflection on prior experience that is described in the preparation stage of Boud and Walker's model and Argyris et al's (1985) "dynamic model", similar to the reflection in action process described in the literature review.

Argyris et al (1985) describe unfreezing as the notion "that existing theories or skills must be brought to awareness and unlearned before new ones can be learned" (p. 270). Unfreezing may include preparation and goal definition. Moving is a process of action and creates an experience; and refreezing in a new state provides a basis for reflection.

Figure 1: Boud & Walker's Model of Learning from Experience Linked to Lewin's Model of Change



Lewin provides a link between the stages of decision-making and the stages of learning. The types of decision-making discussed in the first section of this literature review all result in some degree of change or retention of status quo as described in the Lewin model. The factors underlying the change process- depicted in Boud and Walker's model as the "milieu"- include the nature of the decision, the organization's propensity for risk, the relevance and amount of information known, the numbers of people involved, and whether cognitive, or affective, including issues of morality and emotional concern.

Preparation In the context of decision-making, unfreezing was most commonly the stage of preparation for an experience, although as discussed above, it was an experience in and of itself. The more rational decision-making models described in the literature (Kepner Tregoe, 1981) were seen to be in use in policy decisions, where "unfreezing" the situation occurred through analysis (defining and simplifying the issue), and creativity (generating potential courses of action). "Unfreezing", in policy decisions, was the stage of drawing on relevant prior experience and gathering data. It was the response to a trigger that helped to identify either a problem or an opportunity. Appropriate past experience was recalled, both intentionally and intuitively, as a means to benchmark the new situation with others. Such experience might be task-oriented and draw on expertise in a system, such as a software program, or process, such as reorganization. It might also be people-oriented and involve the transfer of past experience of dealing with people.

"Preparation" was the most cognitive stage in terms of learning. Affect, where it was expressed, was defined in terms of values and emotions gained through past experience. Affect was more prevalent in personal decisions which impacted subordinate and boss relationships. The most common source of learning personal values, cited in fifteen of the interviews, was "upbringing" or learning from family and parents. For example, one participant used the word "sensitivity" to describe her preferred approach to people decisions - an ethical and empathetic way of communicating in difficult situations.

Learning was mostly intentional at the preparation stage. The data gathering techniques employed were inclusive of the characteristics of self-directed learning: highly goal-directed and mainly autonomous, but involving others as resources for information and analysis and approval of ideas. Autonomy was enhanced through what Cell (1998) describes as a "transformative understanding of ourselves" where individuals "make it part of their second nature to be aware of, critique, and enhance our basic cognitive and emotional beliefs in light of our experience" (p. 215). In this way, self-directive learning can be seen to be more than preparing for the decision but a process of self-enlightenment undertaken through the experience itself.

Experience An iterative process could be found to take place between intentional learning and incidental learning during the experience stage. For example, "testing" was described in terms of intentional learning for example as a pilot program with a customer (Frank), introduction of a new computer system to test reactions (Jay and Colin), or testing a "hypothesis" when seeking reactions to organizational proposals (Simon). Then, as the idea was tested, learning became more incidental as experimentation and trial and error occurred in reaction to others' ideas, feedback from the customer or unexpected problems.

Implementation also required more intuitive decision-making, making choices that felt right in order to effect the decision successfully. Reflection in action was prevalent in responding to counter proposals, questions, criticism, action and reaction in response to the dynamic characteristics of an evolving understanding of the situation. Many sub-decisions had to be made to fit with the overall direction of a broader decision, as multiple ongoing activities took place simultaneously. Schön (1987) focuses primarily on professional design work, such as architecture, as a context for reflection in action. This study showed that the process is equally prevalent in situations of decision-making, or convergent thinking, as it is in the more divergent process of creative design.

Re-evaluation and attending to feelings In reviewing a decision, the rational combined with affect to provide a more holistic perspective. Where a decision had not gone as expected, fundamental, almost natural laws, such as the need to build consensus and acquire buy-in to the proposal prior to either recommendation or implementation, resembled the natural forces at work in chaos theory. New perspectives, usually of the dynamics of interacting with people, were gained and incorporated into the way that individuals looked at new situations or described what they would do differently with the benefit of hindsight. Where the approval process and implementation had gone well, attention was paid to the people factors, such as communication, consensus building and trust. Methods of dealing with people issues were either confirmed or learned, and even when expectations had been met, the learner found that he or she should not be tempted to overlook or take shortcuts around these issues in future decision-making.

Reevaluation was rarely conducted formally and so it was personal reflection, or the research interview itself, that prompted reevaluation. When it was conducted, it was either in response to an unexpected problem that arose or justification that an insurmountable factor such as inaccessible information held by a customer, or satisficing, the trade off of meeting the conflicting needs and resource constraints of different constituents, had diluted the desired impact. When more reflective processes of reevaluation took place, usually when the decision was more personal and made by the individual with minimum involvement of others, conceptualization about what happened and why led to generalizations about how to deal with similar situations. As a result, values were confirmed or determined.

Attending to feelings, while an important aspect of reflecting on an experience, was not confined to the reevaluation stage. It was evident at every stage of the learning process. The nature of the critical incident questioning was designed to encourage participants to talk about affect as part of the decision-making and learning processes.

Conclusions

Managers in MedCo were clearly involved informally in self-directed learning activities that helped them to determine which choice to make and to substantiate their case. However, learning could be enhanced if it were consciously recognized, rewarded, and resourced. Further learning — leading to better quality decisions — could be achieved by having access to senior managers as sponsors of the decision-making processes at the outset of the process. Senior managers could then stimulate analytical and creative thinking in addition to the reflective thinking that naturally occurs when reviewing a proposal after the work has been done. A by-product would be less likelihood of defensiveness and broader ownership of the proposal through breadth of involvement. In turn, the organization would become more of a natural learning environment.

Early in a manager's career, he or she can take career-limiting actions because the primary source of learning is through trial and error. Organizations can minimize this risk by complementing informal learning with more systemic approaches to creating learning opportunities. The creation of a culture, reinforced by senior management, that tolerates mistakes and encourages trial and error in favor of shared learning would help to reduce the unproductive energy invested in political maneuvering.

Contribution to Knowledge about HRD

This study sheds light on informal learning through decision making among managers. It links literatures around learning, decision making and change. Given the dynamic and seemingly uncontrollable scenario in which managers find themselves, organizations benefit if they better understand such learning and build on it to develop their managerial ranks. Key to this enhanced understanding is the implication of what might be called the "multi-plexity" of learning. Just as Boud and Walker's reflective learning model incorporated a more iterative perspective than the linear cycle in Kolb's (1984) model of learning from experience, this study shows that multiple learning occurs simultaneously, to the point that any form of conceptualization is inadequate. The subconscious nature of informal learning means that complex interactions between current experience and past experience occur within a dynamic context. Practical, in the moment, learning that causes the individual to determine options and select a course of action takes place simultaneously with longer-term planning and more strategic learning, usually without awareness that such thinking is occurring.

Reflection, usually a subconscious thinking activity, is simultaneously a rational and emotional experience. It is backward-looking but at the same time, it is a means of preparation for future action. Reflection is the evaluation, against practical consequences and personal value constructs, of past and present experience in relation to anticipated future outcomes. These considerations are made against the interventionist backdrop of multiple social contexts. There is a complex structure of layer upon layer of considerations and dimensions that in parallel lead to the making of a decision and its by-product, learning. The multi-plexity of the subconscious learning activity and its interaction with the more apparent decision-making process, provides benefits for practitioners in the field of HRD, particularly those involved in executive coaching. Learning can be facilitated through an active attempt to enable the decision-maker to use his or her thinking about the decision to create potential learning by surfacing more fully the multiple variables that are in play. By encouraging individuals to review the rational and non-rational constituents of important decisions, the HRD practitioner can enable the individual to surface and make meaning of past learning, and review how it may be applied to the new situation.

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Learning Beliefs and Strategies of Female Entrepreneurs: The Importance of Relational Context in Informal and Incidental Learning

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This paper reports the findings from a small pilot study that was designed to investigate the informal ways in which female entrepreneurs learn when they initiate their business ventures. The Marsick and Watkins (1997) model of informal and incidental learning served as a guide for this research. Findings suggest that female entrepreneurs employ learning strategies consistent with the research base on informal learning, however, the notion of relational context is extremely important. Implications for research and practice are provided.

Keywords: Female Entrepreneurs, Informal Learning, Women's Workplace Learning

During the past two decades, female-owned businesses have been initiated at twice the rate of male-owned businesses (Buttner & Moore, 1997). As female entrepreneurship has emerged as a viable force in business communities across the United States, research on this particular population has increased. However, much of the research on female entrepreneurs to date has focused on the requisite traits and behaviors for success (Buttner & Moore, 1997; Hisrich & Brush, 1987; Olson & Currie, 1992), and the strategies female entrepreneurs have learned to overcome obstacles during the transition phase of starting their new business ventures (Carter & Cannon, 1992; Olson & Currie, 1992). Only a limited number of studies have focused on how female entrepreneurs learn during the daily operations of their business ventures and the types of learning strategies they use to support the growth and success of their businesses. These studies have broadly explored the learning experiences of female entrepreneurs uncovering the importance of relationships in their learning (Brush, 1992; Chaganti, 1986; Wells, 1998) and the types of collaborative learning resources they rely upon in their learning (Chaganti, 1986; Helgesen, 1990; Kamau, McLean, & Ardishvilli, 1999). While these studies offer valuable insights into the learning experiences of female entrepreneurs, the particular aspect of informal learning has not been fully explored for this population.

With the limited research available on female entrepreneurs' learning, from a broader perspective, the women's workplace literature provides another avenue for exploring women's learning within an organizational context. The findings from a number of studies indicate that women's learning in the workplace is characterized by networking (Helgesen, 1990), peer collaboration (Fletcher, 1999), and mentoring (Bierema, 1995) These studies shed light on the importance of relationships and on the strategies often chosen specifically by women as they learn corporate culture. However, these studies often define learning more broadly, may focus on formal learning experiences rather than on how informal learning unfolds for women in the workplace, and include women employed within corporate settings as opposed to self-employed women.

Since many scholars acknowledge that the majority of learning occurs informally in the context of work (Marsick & Watkins, 1990, 1997), examining how informal learning occurs for female entrepreneurs offers a promising avenue for deepening our understanding of female entrepreneurs' learning in the workplace. Informal learning in the workplace describes learning from experience that occurs outside of structured, institutionally sponsored, classroom based settings (Watkins & Marsick, 1992). It has been explored within the fields of business, industry, education, and the health care (Carter, 1995). However, it has not been examined in relation to female entrepreneurship.

Despite the emerging research on female entrepreneurs' learning, women's workplace learning, and the established base of literature on informal learning in the workplace, an understanding of how female entrepreneurs learn informally in their particular workplace settings has not been completely explicated. Therefore, the purpose of this pilot research is to deepen our understanding of female entrepreneurs' informal learning.

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Conceptual Framework

The Marsick and Watkins (1990, 1997) model of informal and incidental learning served as the conceptual framework undergirding this pilot study. Marsick and Watkins (1997) characterize their informal and incidental learning model as a problem-solving approach that is not straightforward or prescriptive. For Watkins and Marsick (1992), informal learning may be planned or unplanned, may or may not be designed or expected, but usually incorporates a degree of consciousness about the learning that is taking place. Throughout the process, there is a presence of action and reflection. Incidental learning is considered a special category of informal learning. It is often unintentional, and a by-product of informal learning.

Marsick and Watkins contend that the cycle is embedded with sub-surface beliefs, values, and assumptions that guide action at each stage. In this model, informal and incidental learning are influenced by how people frame a situation as a problem that is typically a non-routine problem. As they frame it within their context based upon their beliefs and assumptions that are often unconscious, they consider strategies for solving that problem. Watkins and Marsick (1992) suggest that strategies for informal learning often include self-directed learning, networking, coaching, mentoring, performance planning systems used for developmental purposes, and trial and error.

The Marsick and Watkins model, however, was not empirically tested here, but rather was used as a boundary for this study. Specifically, findings associated with female entrepreneurs' learning strategies were examined in relation to the model.

Review of the Literature

The following relevant literature informs this pilot study: female entrepreneurs' learning, women's workplace learning, and informal and incidental learning literatures.

Female Entrepreneurs' Learning. Some evidence exists in the female entrepreneur learning literature that female entrepreneurs create knowledge within the context of connectedness to self and others and choose learning strategies that reflect the importance of these relationships within their learning. Wells' (1998) study of eighteen female entrepreneurs revealed that learning most frequently occurred in the context of informal networks and in mentoring relationships. The entrepreneurs in Well's study learned "with others and from others" (p. 129). They further described their learning as continuous, self-initiated, and as "unplanned, spontaneous, and informal, truly 'just in time'" (p. 129). Chaganti (1986) uncovered the use of collaborative learning through a team approach in decision-making by the female entrepreneurs in his study, and Kamau, McLean, and Ardishvillie (1999) noted that the female entrepreneurs in their study utilized intuition during decision making, particularly during the emergent phase of their business ventures. Additionally, Brush's (1992) review of fifty-seven empirical studies of female entrepreneurs suggests that the female entrepreneurs viewed their business ventures within a cooperative network of relationships. Brush proposes a new model of work and learning for this population that incorporates the integrated nature of their learning.

Women's Workplace Learning. Women's learning in relationship with others and their selection of collaborative strategies for learning have also emerged in a number of women's workplace learning studies. Female engineers in Fletcher's (1999) study employed "fluid expertise" where knowledge "shifts from one party to the other, not only over time but in the course of one interaction" (p. 64). In her study of female executives, Bierema (1995) discovered that the women learned organizational culture through networking, peer support, and mentoring. Hosking, Dachler, and Gergen (1995) uncovered a relational model of female leadership in organizational settings that emphasized a process of multiloguing (multiple discussions with others), negotiating, and networking. The importance of relationships and intuition when making business decisions has also emerged. Helgesen (1990) noted that women managers trade ideas with people, seek out lots of information, and let it "jell" before coming to a decision. Women's workplace learning literature offers additional insights that suggest the importance of relationships for women in their learning, and the variety of learning strategies they use within organizational settings.

Informal and Incidental Learning Research. The Marsick and Watkins (1990, 1997) model of informal and incidental learning has been empirically tested and used in more than 20 studies investigating informal and incidental learning (Marsick & Watkins, 1997). In an extensive review of the informal and incidental learning literature, Carter (1995) identified nine studies that had been conducted to explore informal learning in business, industrial, and educational settings and six studies that had explored informal learning in the health care field. In these studies, senior level managers, human resource professionals, chemists and engineers, health care managers, paramedics, community college faculty members, and non-profit employees comprised the respective samples. Interviewing, the critical incident technique, observation, and document analysis represented the primary methods of data collection in these studies. Overall findings from these studies suggest that more than half of the major learning modalities for the participants in these studies included networking, mentoring, and learning 'through supervisors.' Learning through 'relationships' was another significant method of informal learning, yet it was unclear what the category of relationships included. Cseh's (1998, 1999) more recent research, focused on managerial learning, also lends support for many of the learning strategies that have been identified in prior research. Cseh's research and Watkins and Cervero's (2000) research on learning opportunities within a certified public accountancy practice also point to the importance of context as it relates to informal and incidental learning. However, Marsick and Watkins acknowledge that while context is implicit in their model, its pervasive influence on the learning process has not been that evident and additional research is needed.

In summary, despite the emerging research on female entrepreneurs' learning and women's workplace learning in general, and the extensive exploration of informal and incidental learning in a number of settings, there is a growing need to better understand how informal learning occurs for female entrepreneurs within their workplace contexts. Although the Marsick and Watkins model has been explored in many different settings, it does not appear that female entrepreneurs have been studied using this model as a guide. Therefore, female entrepreneurs represent a unique platform upon which to study informal and incidental learning.

Research Methodology and Research Questions

A qualitative naturalistic design was employed for this small pilot study. The primary research questions addressed in this study were: (1) What strategies do female entrepreneurs employ in their learning?; and, (2) What are the learning beliefs of female entrepreneurs that influence their learning?

The Critical Incident Technique (Flanagan, 1954) and semi-structured interviews were the primary methods of data collection. The Critical Incident Technique is an effective way to engage participants by encouraging them to recall specific critical situations that have been either highly effective or highly ineffective. For the purposes of this study, participants were asked to recall specific critical incidents that reflected their learning

Table 1. Participant Demographics and Background

Participant Name	Current Business	Number of Employees	Previous Number of Businesses Owned	Education
Elaine	Day Care; Training & Consulting	0 0	2	B.S. Management Associate in Child Development
Carrie	Travel	9	0	B.S. Education M.S. Spanish
Lisa	Business & Technology Consulting	4	0	B.S. Business Administration
Linda	Manufacturing of Small Paper Conversions and Small Paper Roles for Business; Marketing Consultant	32 0	2	B.S. Theater
Marsha	Production of Marketing and Public Relations Materials and Consultation on Advertising and Public Relations; Freelance Journalist	0 0	0	B.S. Journalism

during the transition period of business start-up, while learning on the job, and while learning how to overcome the obstacles and barriers they face. Additionally, employing open-ended questions during the semi-structured interviews allowed the women's own descriptions of their beliefs about their learning and the types of learning strategies they employed to emerge from their narratives.

A purposeful sampling strategy was selected for the study to obtain information-rich cases (Patton, 1990). Names of possible participants were obtained from a regional female entrepreneur business organization, through a regional network established for independent trainers and business consultants, and through snowball participant referrals. Five participants, ranging in age from forty to fifty-two and representing a variety of business ventures, were selected that met the criteria of having operated their business for at least three years within the south central region of a state located in the Eastern part of the United States. Table 1 presents the demographic information for each of the participants in the study. Pseudonyms for each of the participants have been used to ensure confidentiality.

Face-to-face interviews were conducted with each of the five women on-site at their respective business locations. Interviews, approximately 60-90 minutes in length for each participant, were tape recorded and transcribed verbatim. Participants reviewed the transcripts and follow-up interviews were conducted to ensure authenticity. The transcripts were analyzed using thematic coding (Bogdan & Biklen, 1992). Using the Marsick and Watkins model (1990, 1997) as a general guide, the data was first sorted into two main categories that represented the women's beliefs about their learning processes in general and the specific strategies they used as they learned. Within these broader framework categories, sub-categories were then determined through further thematic analysis of the data. Data collection and analysis were conducted rigorously to ensure trustworthiness (Lincoln & Guba, 1985; Marshall & Rossman, 1995). Due to the small, purposeful sample size, however, the findings associated with this study are not intended to be generalizable.

Results and Findings

Three main themes emerged from the data that offer insight into the beliefs that framed female entrepreneurs' informal learning, the types of knowledge that these women valued most, and the strategies they employed to solve problems and make decisions in their business ventures. Table 2 presents the themes and sub-themes. Each theme will be discussed and illustrative quotations will be provided in the sections that follow.

Table 2. Summary of Themes Emerging From the Data

Beliefs Undergirding Informal Learning
Continuous and central to growth and vitality
No learning obstacle is too difficult too overcome
Learning is self-initiated and self-determined
Knowledge Valued
Knowledge produced through informal networking was the most highly valued
Informal Learning Strategies
Informal networks
Trial and error
Application of past learning to current learning problems
Mutuality of mentoring relationships
Intuition

Female Entrepreneurs' Beliefs About Learning. Three themes emerged within this broader category of beliefs about learning: *Learning is continuous and central to growth and vitality, No learning obstacle is too difficult to overcome, Learning is self-initiated and self-determined.*

The first theme in this category reflected the women's beliefs that learning was a *continuous process central to their sense of vitality, being, and growth.* Elaine noted, "…when you stop learning you stop living. My mother used to tell me that everyday you're gonna learn something new and every now and then I have to…I have to think only one thing – learning to me is an ongoing process. It's keeping from being stagnate…" Learning for Carrie was also vital to her sense of being. She said, "Learning is a very important thing to me... …I think it's the one point…if you stop learning you might as well stop doing." This belief was echoed by Linda who stated, "…the day I stop learning is the day you can put me six feet under."

The women approached their businesses and learning with a belief that *no obstacle is too difficult to overcome*. This also held true when they were faced with obstacles in their learning. The women's resilience and perseverance in their learning was captured in Lisa's comments when she stated, "…you are never too old to learn. Learning comes in all fashions and you learn from the moment you are born right through your next life and your next life. It never stops. And you keep learning until you get it right. …So, I think overcoming obstacles is all about identifying contingency plans and maintaining a positive outcome. There's a lesson to be learned somewhere and if you can, if you come across a barrier that you didn't have before, once you get over that barrier or remove that barrier, uh, you're smart the next time and you know that up front."

The final belief that framed the women's learning was that they determined when they learned and the type of resources utilized to support their learning at that particular moment. For the female entrepreneurs in this exploratory study, *learning was self-initiated and self-determined*. Sometimes their learning was very focused, goal directed, and "in the moment" and sometimes it was unplanned, unexpected, and serendipitous. Always, though, the women depicted themselves in charge of their learning. Linda described how she researches information when faced with a new learning problem in her business. She acknowledged, "…I can do a lot of it [internet research] and plan with new options because the one problem with letting somebody else do the research in answer to a question is that some of the things that you find out, that are not directly related, trigger other thoughts. But at the same time, it takes an awful lot of patience to do it." As evidenced by Linda, the women in this study also recognized that taking charge of their own learning provided creative business solutions that they might not have thought of otherwise.

Most Prevalent and Valued Informal Learning Strategy. While the women turned to multiple sources to seek out information, i.e., reading, the internet, and occasionally courses and seminars, connecting with others through the creation of *informal networks produced knowledge that was the most highly valued by the women* and was the *most frequently cited strategy for learning*. While the women perceived a need for involving themselves in formal networks for marketing, visibility, and establishing credibility, it was the informal networks uniquely carved out by each of the women that they turned to most often. They created informal networks with colleagues, customers, and family to discuss business problems that arose "in the moment." Carrie explained, "…women's business clubs are nice, and they're good for marketing and they're good for, um, learning about what's going on in business. The biggest thing to me, the most helpful thing is talking to other people who are in business. …I talk a lot [with my husband] about the daily decisions and …talk with friends who have businesses. I think you just fill up a capacity of learning things, so to speak, experience, um, that you can make those decisions." These female entrepreneurs also highly regarded the advice obtained from these informal networks to guard against possible pitfalls and potential mistakes and to obtain input when making decisions. Elaine sought out the opinions of colleagues before starting her day care business. She stated, "That was a lot of my research [when starting my business]. …asking them [other day care owners] what would be the one thing you'd change if you could start again. What was the biggest mistake, you know, what…what do you regret?" …the most day to day training that I get is just picking up the phone and talking to another provider and networking, knowing that you're not alone." Finally, the women not only valued the knowledge gleaned from the informal networks that they crafted in their lives but also relied on these networks for emotional support to continue their business ventures during difficult times. Elaine described the support she has received from colleagues, friends, and family. She acknowledged, "…I don't think I'd be where I am. I think I might have thrown in the towel a lot earlier and…and not stuck with it. Um, the fact that I've had the support from other women. Even if it's a pat on the back or…or just simply, you know, you're doing a great job when I needed to hear it. That a…without us supporting each other…we're not gonna continue in this, uh, industry as self-employment for women."

In addition to the beliefs that framed their learning, placing a high value on the knowledge produced during informal networking, and using *informal networks as a learning strategy*, the women also cited *trial and error*, *application of past learning to current problem-solving*, *mentoring*, and *intuition* as further learning strategies.

Other Learning Strategies Employed. The women cited *trial and error* as a strategy that helped them move through frustrating learning moments resulting in creative solutions to solve the problem at hand. They also recognized that this learning technique often produced "incidental" or other types of learning as a "by-product" of the learning that would not have occurred had they not used this strategy. For example, Elaine acknowledged, "I tried something and it didn't work. So I'm gonna go back and try something else and I'm gonna take part of what worked and part of what didn't and come up with another and it's all part of the journey. And that if I hadn't made this mistake I wouldn't necessarily be steered off in another direction for something that might work better." Lisa also described how she used the strategy of trial and error in her learning. She noted, "…it's a kind of a lot of analysis. I do a lot of thought process too in my head, sometimes to the point that I go way down to, ah, too much of a detail level. But I do a lot of what if's and I wonder what that meant and I wonder what the outcome of this will be and I wonder if I change this part what will happen here." Linda described how trial and error unfolded as she learned in her manufacturing business, "And one of things that I pride myself on is I, also gets me into trouble, because I equivocate a lot of back and forth… because I start seeing this ramification – oops! Well, now how do I counteract that, then I have to start back up here, and then I go down this path. Then I'm sitting, okay, I can't decide which path is the better path."

The women also employed the strategy of *applying past learning to current learning dilemmas* and experienced a measure of pride when they were able to do so. They recognized the similarities between the current problem and connected to their own learning repository of knowledge through a process of reflection and action. Elaine described how she used this strategy when dealing with a child in her day care program that was presenting some challenging behaviors. She stated, "And sometimes I think you learn lessons and you don't realize you've learned them until after the fact. …then not too long in the future, I find myself almost in that same situation and I say, oh, now I know what I was to learn six months ago. I just didn't know I learned it until now." "I took a course when I was in restaurant management on how to deal with upset public and I fall back on that quite often. Especially when I…I have an unruly student… you know, I fall back to those techniques and I still have that… that's probably the one course that I've gone back to and refer to more than anything else."

Turning to *mentors* was another strategy utilized by the women to solve a problem and for encouragement. Marsha explained, "…I found some really good [mentoring] relationships and there was one, in particular, who, uh, who gave me really good advice and…there's not many people you want to go to and say should I take this job, should I do this. But he was the type of person that encouraged you to do that and made me take risks that I probably would not have done." A notable feature of these women's experience of mentoring was the *mutuality* involved in the sharing of information and in the learning exchange. Lisa described how this occurred in her relationship with her two business partners. She acknowledged, "…I think one of the best things I did was go into business with two people who I consider to be smarter than myself and…and it constantly sets the bar to stretch to their level. Um, so everyday I learn from them and, uh, they're my mentors. And I believe that they would say that I'm their mentor in other areas…we learn from each other." The women not only sought out mentors for decision making and to solve a learning issue that arose in their own business ventures, but also learned while mentoring others as well. Learning within mentoring relationships was considered a two-way street. Lisa described how mentoring other entrepreneurs solidified her own learning. She stated, "Well, the whole mentoring process is a validation of your knowledge because I think…there are those points where you have to recheck your confidence in yourself and what you're doing. And when you're able to help somebody start up a business and they see the first real value in the time that you spend with them building on those and getting successes from that…it revalidates your approach and your belief in yourself."

Finally, *intuition* emerged as a learning strategy frequently utilized by the participants of the study during decision making and in bringing seemingly disparate pieces of a learning dilemma into a congruent whole. There was a high degree of reliance on and confidence in the knowledge that the strategy of intuition produced. Lisa described how this strategy worked for her. "…I call it the gut meter and I watch how much it's spinning and I go with my gut very much. …and I'm usually pretty right. You know…I think the confidence is pretty high in that area." Linda explained how this strategy produced positive results in her marketing endeavors by stating, "…I guess marketing is my gift. We all have a gift of some variety and I have an intuitive sense about what will work and what won't work for, uh, various companies or various situations. …what makes me good at marketing is taking diverse pieces of information and almost intuitively putting them together into their ramifications."

In summary, informal learning was viewed by the female entrepreneurs in this study as an ongoing process central to their sense of vitality, being, and growth. These entrepreneurs also believed that no obstacle was too large to overcome producing a fastidiousness and resilience in their learning endeavors. Finally, these female entrepreneurs also believed that they were in charge of their own learning choosing when to learn and what resources to tap.

In terms of informal learning strategies, the female entrepreneurs carved out informal networks to connect with colleagues, customers, and family producing knowledge that was regarded by the women as the most valued learning resource. In addition to relying more heavily on informal networks rather than formal networks, the women also employed trial and error, application of past learning experience to current learning dilemmas, mentoring, and intuition as tools for learning. By creating learning connections with others and by cementing learning connections within themselves, they guided themselves through multiple pathways of learning producing knowledge that was vital to their success.

Conclusions and Recommendations

The themes relating to female entrepreneurs' beliefs about learning as being continuous and a vital part of their being and growth mirrors the findings in the female entrepreneur learning literature that characterize learning as ongoing and central to their well-being (Wells, 1998). The participants' beliefs that they self-initiated and self-determined their learning reflects Wells' (1998) conclusion that the women in her study were "owners of their learning" (p. 127).

The high value placed on knowledge produced through informal networks and the importance that informal networks play as the most frequently cited learning strategy offers support for the Chaganti (1986) and Wells (1998) studies. This pilot study also supports Brush's (1992) call for a new model of work and learning for female entrepreneurs that incorporates an integrated perspective on learning reflecting the collaborative network of relationships evident in their learning processes. Additionally, this research confirms the broader women's workplace learning literature that reflects the sharing of knowledge through "fluid expertise" (Fletcher, 1999, p. 64), the reliance on networking, peer support, and mentoring (Bierema, 1995), the collaborative nature of women's leadership styles in the workplace that emphasizes multiloguing and networks as a learning resource (Hosking, et. al., 1995), and the seeking out of information from others before coming to a decision (Helgesen, 1990).

The learning strategies of female entrepreneurs in this pilot study occurred informally in their work settings and included networking, applying past learning to current learning dilemmas, mentoring relationships, using trial and error, and intuition. Incidental learning occurred most often during trial and error methods of learning. The women always described themselves as their own guides in their learning proceeding in a self directed manner. These findings confirm the basic tenets of the Marsick and Watkins (1990, 1997) model of informal and incidental learning regarding learning strategies, and lend support for the prior research that has examined learning strategies.

The overall findings from this research, however, suggest that informal networks play a more significant role in female entrepreneurs' informal learning as a learning strategy than perhaps reflected in the overall strategies associated with the informal and incidental learning literature and the conceptual model guiding this study. Additionally, the mutuality of mentoring relationships, described by the participants in this study, represents another informal learning strategy that is a slight departure from how mentoring is typically conceived within this literature. It may be worthwhile to examine these strategies further to determine if the Marsick and Watkins' model should be extended or re-conceptualized specifically for female entrepreneurs. In fact, subsequent to the analysis of the data from this pilot study occurring in the Spring of 2000, Fenwick and Hutton (2000) drew a similar conclusion based on their ongoing study of the informal and incidental learning of ninety-five Canadian female entrepreneurs. Fenwick and Hutton's emerging findings suggest that relationships play a central role in the informal and incidental learning described by the women in their study, and they contend that current models of experiential and informal learning in the workplace may not fully reflect the relational context described by the women. The findings from this pilot study and Fenwick and Hutton's (2000) subsequent findings support Cseh's (1998), and Cseh, Watkins, and Marsick's (1999) earlier call for further examination of the role that context plays in informal learning.

In summary, the findings of this study support and extend the emerging literature base in female entrepreneur learning and in women's workplace learning that describe the importance of relationships and collaborative approaches to learning. It also confirms the literature on informal and incidental learning that indicates that the majority of workplace learning occurs informally and incidentally. The Marsick and Watkins (1990, 1997) model of informal and incidental learning includes a number of strategies employed by the women in this study and embeds the notion of context in the informal learning experience. However, the model may need to be expanded to reflect the central importance of relationships embedded in these participants' beliefs, values, and assumptions, and to emphasize the role that relational contexts play when selecting informal networks and mentoring relationships to advance their learning. Finally, integrating the intuitive learning connections made by the women during decision-making and when fitting together the pieces of their learning into a congruent whole may also be an area that can be more fully explicated to determine if and how it fits within the Marsick and Watkins model.

How This Research Contributes to New Knowledge in HRD

The findings of this pilot study offer additional insights into the role that relational context plays in informal learning for this particular population of female entrepreneurs and provides a more differentiated understanding of their use of networking, mentoring, and intuition as learning strategies during informal learning. Using a gendered perspective to frame a larger scale study investigating the relational contexts that female entrepreneurs bring to their selection of learning strategies might prove to be a fruitful avenue for advancing our understanding of the notion of context embedded in the informal and incidental learning model. Finally, from a practice perspective, the findings from this study may inform training and educational programs designed by government and private organizations to support the successful start-up and growth of female entrepreneurs ventures to increase the likelihood of female entrepreneurial success.

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Analyzing Training from an Emotions Perspective

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Excitement, boredom, frustration, joy, anger, and other emotions are frequently present in the training room, and it is likely that they influence the involvement of trainees, group dynamics, learning, stress, relationships, and the effectiveness of the course. Given this potential impact, how can we use empirical and theoretical literature on emotions to analyze incidents in the training context, and so improve our understanding of emotions in training? This paper summarizes the relevant literature, and illustrates its application through the analysis of two short scenarios.

Keywords: Emotions; Training; Emotional Labor

Problem Statement and Research Objectives

In the Course Room

A trainee, frustrated at being sent on a course, jumps up mid-morning, announces to a room full of surprised trainees and two trainers that, "This is crap," and leaves the room. Another is so paralyzed with fear that she is unwilling and physically unable to complete a role-play. A third leaves the course enthusiastic to apply new learning after one-to-one coaching on how to deal with an aggressive manager. At another event a short time later, a different group of participants share written narratives and analyze personal critical incidents: the trainees have a high emotional attachment to the learning process and content, and feel committed to changing their behaviors as leaders.

In the Books and Journals

The term *emotion* has been defined to cover so-called basic emotions (joy, love, anger, etc.), social emotions (shame, guilt, jealousy, etc.), and related constructs like mood, sentiment, and affect (Ashforth & Humphrey, 1995). Only recently though has the topic of emotion received significant attention from researchers in organizational behavior (Fineman, 1993) and in HRD (Turnbull, 1999; Callahan, 2000a). That lack of attention was highlighted by Flam (1993) who commented that, "a serious analytical interest in emotion in general, and in the negative emotions in particular, is almost entirely missing in recent study of work and organizational life" (1993, p. 68). In part, the neglect can be considered due to the emphasis placed to date on rationality in organizations, and the view that emotions are irrational and threatening to organizational effectiveness (Domagalski, 1999). Putnam and Mumby (1993) have labeled that view of workplace emotion as the myth of organizational rationality.

For a decade or so now, journal articles have provided empirical and theoretical accounts of emotions, predominantly related to emotion as a social phenomenon. In the organizational setting, scholars have considered how social norms affect the display of emotion in the workplace (Fineman, 1993), and how employees learn those norms (Ashforth & Humphrey, 1995). They have considered the public management of emotion - situations where employees, because of the nature of their work, need to express an emotion different to the one they are feeling (Hochschild, 1983), how employees do that, and the implications for the individuals concerned (Rafaeli & Sutton, 1987). Scholars have also considered the impact of emotions on learning (Boud, 1989; Brew, 1993), and the impact of emotions on organizational effectiveness (Ashforth & Humphrey, 1995).

In HRD journals, two recent pieces have acted to place the study of emotion in the limelight. Turnbull (1999) used a case study of a large engineering company to explore the effects of corporate change programs on the emotions and performance of middle managers. Callahan (2000a) studied the purposes for which organizational members managed their experience, or expression, of emotion in a not-for-profit organization. However, neither authors addressed emotions in the training room.

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In this Paper

In this paper, I seek to connect the two worlds of emotions in the training room and literature on emotions. My goals are three-fold:

- To illustrate how events in the training room can be analyzed from an emotions perspective using the empirical and theoretical literature on emotions;
- To reflect on the implications for training design of a greater awareness of the link between emotions and training; and
- To identify potential areas for future research on emotions in training.

The paper is structured into three parts: a literature review of the main scholarly work on emotions that could be used in an analysis of emotional events in the training context; that material is then applied to the analysis of two short scenarios; and the paper concludes with a summary and suggestions for future research.

Reflections on Emotions Literature from a Training Perspective

Rational versus Emotional

The vast majority of books about organizations and organizational change emphasize the rational over the emotional (Domagalski, 1999), with emotions frequently treated as inappropriate to organizational life, devalued, marginalized, and viewed as disruptive, illogical, biased, and weak (Putnam & Mumby, 1993). Using a common metaphor of 'the organization is a machine' (Morgan, 1997), authors of such books emphasize orderliness, precision, routinization, calculative processes, and technical efficiency.

Yet, 'training is a machine' could be a poor metaphor with which to design and run a training course. On a rational level, trainees may accept the learning need, the content, and the process; but their emotions from various sources could place significant barriers to their learning. Possible sources of emotions could include: those they bring into the training room from elsewhere, those generated by the course process, and those generated through interactions between and among trainees and trainers.

Learning the Script

Not all emotions are expressed or acted out in all situations, in part because *display rules* and *scripts* act as a social consciousness about what feelings to show (Fineman, 1993). Prescriptive social norms therefore dictate how, when, and where emotions can be expressed in a given culture. Some emotions are therefore likely to be considered acceptable in the training room, and others as unacceptable. Whether emotions are considered 'acceptable' or 'not' may therefore depend on such contextual factors as national and organizational culture, the training material, and the prior experiences of the individuals involved.

Exploring the script metaphor further, when in the training room both trainers and trainees can be viewed as *theater performers*, following their scripts by displaying particular emotions and not others (Domagalski, 1999). Trainers, for example, learn their script on how to behave, how to react to trainees, and how to deal publicly with their own emotions. They develop a public-face; learning it like other employees through observation, imitation, instruction, trial and error, feedback, reinforcement, and punishment (Ashforth & Humphrey, 1995). Trainers then operate within bounds of acceptable emotional behavior, suppressing emotions where needed.

Some of the practical implications for training include: the importance of trainers understanding the display rules and scripts in cultures other than their own (national and organizational), and the need to question rules and scripts where they hinder the learning process.

Wearing the Mask

If trainers are managing their emotional displays, what are the implications for them, their work, and their personal lives? How reasonable is it that organizations require trainers to work with a script that limits the emotions they can show to their trainees? Three terms are useful for exploring these questions: emotion management, emotional labor, and emotional dissonance.

Emotion management is the management of feeling to create a publicly observable facial and bodily display (Hochschild, 1983). It can take two forms: *emotion work*, where actions are associated with use value and so not linked with earning money or gaining other goods; and *emotional labor*, where the emotion work is exchanged for something such as a wage or other type of valued commodity (Callahan & McCollum, 2000). The reasoning behind trainers' emotional labor is that, like counselors, doctors, nurses, and social workers, they are paid to look serious, understanding, controlled, cool, and empathetic in their dealings with clients. Doing that can involve: suppression, by trying to eliminate or subdue an emotion (Hochschild, 1983); evocation, by trying to draw forth an emotion that is not present (Hochschild, 1983); and veiling, by using one emotion to cover for another (Callahan, 2000b). Trainers, for example, can hide feelings of frustration (suppression), appear enthusiastic about a course they actually have no feelings for (evocation), and be supportive of an organizational change they personally disagree with (veiling).

Emotional labor does not necessarily come easily or without a price, particularly given the energy required for trainers to wear their professional 'mask' in the training room. The price is likely to be greater where there are high levels of *emotional dissonance*, which is the conflict between genuinely felt emotions and emotions required to be displayed in organizations (Middleton, 1989). Stress can result where the dissonance is too great, or where trainers' inner feelings become fused with their organizational roles. In the face of risks from stress and poor mental health (Rafaeli & Sutton, 1987), trainers have a choice to operate within their script or express their real emotions. The consequences of the latter can include criticisms, warnings, demotions, and firings; all of which can be used to sanction those trainers who deviate from appropriate emotional displays.

Other than the risk of stress, emotional labor has been linked to: drug and alcohol abuse, absenteeism, and alienation from genuine feelings (Hochschild, 1983); the act going stale, private feelings leaking through the mask, anger, irritation, and rebellion (Fineman, 1993); and emotional exhaustion and reduced job satisfaction (Morris & Feldman, 1996). Trainers, who therefore learn their script and operate within the emotional bounds set by display rules, could eventually reach the point where their own feelings are at odds with those they have to display. The greater that dissonance, the greater the likelihood of health problems, reduced performance, and reduced job satisfaction. This emphasizes the need for trainers and training managers to consider trainers' emotions when designing courses, for example by seeking ways of minimizing experienced emotional dissonance, through work design, or by creating physical back-stages (Goffman, 1959), where the rigors of emotional labor are relaxed.

Emotions and the Impact on Learning

The whole person is involved in the learning process, including his or her feelings (Knowles, Holton, & Swanson, 1998), and so emotions are integral to learning. They can affect potential trainees before they enter the training room, for example as they come to terms with identified learning needs (or do not come to terms with them), and as they decide whether or not to attend a training course. Those decisions can be influenced by such factors as an individual's anxiety level (Hilgard & Bower, 1966), fear of what they do not know, or fear of knowing what they do not know (Brew, 1993), and past negative experiences of learning (Boud, 1989). These suggest a role for trainers and managers in supporting employees who face emotional challenges to entering potentially useful training events.

Once in the training room, emotions and feelings can act to severely inhibit learning of all kinds (Boud, 1989). Particular barriers include a lack of confidence or self-esteem, fear of failure, fear of the response from others, unexpressed grief about lost opportunities, previous negative experiences, and the general emotional state of the learner. Trainees may need the support of trainers to overcome these barriers if they are to make the most use of the learning opportunity. Trainers will also need to be aware that some emotional barriers to learning are more deep-seated, requiring intensive therapeutic assistance (Boud & Walker, 1993).

Despite this evidence, emotions are not necessarily a threat to learning. For example, there are implications for training courses of Ashforth and Humphrey's (1995) assertion that there are times when organizational effectiveness may be improved by celebrating rather than suppressing emotion, and that emotional engagement in the pursuit of goal-directed activities can generate employee motivation and work involvement. Similarly, Putnam and Mumby (1993) argued that the sharing of emotional experiences develops mutual affect, connectedness, and cohesion that break down anonymity; and Collins (1990) believed that emotional energy generates or determines a sense of belonging or solidarity in organizations. Emotions can therefore act to facilitate joint actions, and be the social glue that makes or breaks structures and gatherings (Fineman, 1993).

Using Emotions in the Training Process

If emotions can act to support or hinder the learning process in the training room, what are the issues for the design of training courses? How can trainers design and deliver training to encourage and generate an emotional engagement between trainees and the training content? Where training forms part of an organizational change, how can trainers use the training course to generate new levels of motivation for the change? Based on an analysis of the literature, here are five methods that trainers can consider to achieve these goals.

Helping Trainees to Overcome their Fear in Learning: Learning may require that trainees let go of certain beliefs, despite a fear of not knowing what replaces them or a concern that once the beliefs are removed there is nothing underneath (Isaacs, 1999). Trainers need to design supportive processes that help trainees to identify and question existing assumptions and beliefs. Trainers need to acknowledge the potential negative impact of fear and support trainees as they abandon judgments, avoid defending positions, and avoid being selective over the evidence to which they pay attention.

Creating the Right Environment for Discussing Emotions: In the same way that organizations can seek to generate cultures that support emotional expression (Putnam & Mumby, 1993), the environment in the training room can be designed to facilitate disclosure of emotions. The interactional context serves as a guide for disclosure of feelings, and so trainers should seek a context where participants can surface what they really think and feel, talk about where they stand on issues, notice and explore assumptions, connect with those who have different views, and eventually generate new possibilities. That context requires listening, suspending, respect, and voicing (allowing trainees to speak their voice) (Isaacs, 1999).

Trainer Self-disclosure of Emotions: Trainer self-disclosure is an important part of creating an environment for discussing emotions. Rogers (1969) provided guidelines for the facilitation of learning, including two suggestions for the facilitation of learning where emotions are present. The first was that the facilitator should share her feelings with the group, including her reactions to them as individuals and her personal satisfaction or disappointments. The second was that the facilitator should remain alert to deep or strong feelings held by individuals, seek to understand them, and communicate empathic understanding.

Recognizing Individuals' Different Emotional Needs: Postle (1993) set out ten criteria for emotional competence in the affective mode of learning. Those ten provided learners with a framework for reflecting on how they learn from their emotions, and offered trainers and learners a framework for enhancing learning effectiveness. As well as person-to-person variation, trainers should also be aware of research on how emotions vary by gender (Shields, 2000), and by national culture (Gerhards, 1989).

Helping Trainees to Explore their Emotions: Trainers can help trainees explore their emotions by drawing their attention to two key distinctions. The first is the distinction between what Bohm (1996) described as 'thinking' (fresh responses) and 'thoughts' (habitual reactions from memory). The second is what Garrett (cited in Isaacs, 1999) described as the distinction between 'feelings' (which form in the present moment) and 'felts' (which are memories of past feelings). Applying those distinctions in the training environment encourages trainees to explore sources of emotions, become engaged in the here-and-now emotions of the training process, and learn more effectively from the thinking and feeling that occurs during the course. To learn from (and with) their emotions, trainees must focus on their thoughts and feelings as they emerge, the sources of those thoughts and feelings, and their impact on learning. In contrast, felts (and to a lesser extent, thoughts) are historical, habitual, and likely to inhibit learning in the current moment.

Reflections on Training from an Emotions Perspective

Basis for the Analysis, and Limitations

This section focuses on applying the above literature to the analysis of two training scenarios. These were selected because of ease-of-access – as a researcher, I had been involved in writing past papers based on both scenarios. There are obvious limitations associated with this approach: for example, these scenarios may be atypical of those where emotions occur in the training context, and my description of the scenarios may be biased towards highlighting specific emotions. However, these limitations should be considered against the overall objective of the analysis, which is to illustrate how emotion theory and research can be applied to the analysis of training events. I leave it up to each individual reader to decide whether these scenarios involve events that occur (or are similar to those that occur) on a regular basis in training rooms around the world, and therefore to draw their own conclusions about the validity of the illustrations.

Both scenarios were originally published for reasons other than their emotional content. The first scenario (Short, Boroto, & Zahn, 2000) was an analysis of a critical incident from an assertiveness training course that ran in the UK in 1998. The two-day course was held for ten participants, and data were collected after the event through interviews with the trainers. The original study was published to illustrate how the incident could be analyzed for the impact of attitudes, relationships, language, experience, and structure.

The second scenario (Short & Jarvis, 2000) was an evaluation of a leadership development program designed to approach development at an emotional level (for example, through the discussion of personal critical incidents) and to develop participants' emotional attachment to the learning. The data collection took place from January to August 1999 at two locations in the UK using 18 participants in public sector managerial positions ranging from first-rung managers up to experienced senior managers of large teams. Data were collected through audio recordings of training sessions, trainee learning journals, during- and post-event questionnaires, and post-event focus groups with trainees.

The original data have not been re-analyzed for this paper. Instead, the descriptions of the scenarios were taken from the two published papers, considered from an emotional perspective using the theoretical framework described in the last section, and summarized for this paper.

Scenario #1: Breakdowns during a Training Course

The scene is a two-day workplace assertiveness skills course (Short, Boroto, & Zahn, 2000). The two trainers are working together for the first time, and have decided to adapt the standard course design by incorporating coached videotaped role-plays.

Ten trainees attend the course: all are either clerical staff or 'first-rung' managers. At the start of the first day, the trainees' energy levels are low and they make little eye contact with each other or with the trainers. During an opening exercise, some describe positive hopes for the outcomes of the course, some report feeling uncomfortable, and some express concerns about engaging in role-plays. In discussions on the purpose of the role-plays, some trainees become defensive and others angry. Some trainees exhibit signs of being in a state of panic or fear.

During the morning coffee break, two trainees tell a trainer that their manager had forced them to attend the course by threatening to withdraw their performance bonus if they did not comply. During the same break, another trainee explains that she gets physically sick during role-plays, that she does not intend to do one, and that she might as well leave at that point. After the break, the course-room situation deteriorates: some trainees express doubts about the usefulness of the course material, and others make such comments as, 'We don't need to change,' and 'We are happy how we are.' The trainers initiate a discussion of what course material would be helpful, but no suggestions are forthcoming. The trainers feel angry about the trainees' unwillingness to participate, and frustrated that they cannot find a way to convince them of the benefits of the course; they choose not to discuss their emotions with the trainees.

By the mid-afternoon coffee break, one of the trainees sent by his manager announces that, "This is all crap," and that he will not attend the second day. The trainers feel confused (and again keep those emotions to themselves), discuss a strategy in private, and decide to give a stronger lead from the front.

Scenario #2: Building Emotions into the Training Design

The scene is a leadership development meeting (Short & Jarvis, 2000), with ten people sat in a circle; one of the ten is a trainer although it is not immediately obvious which. The ten have all been through leadership development programs before that mainly covered models and theories. They have signed up for the current program because their past training failed to produce the desired change in leadership behaviors.

The program involves the ten participants meeting for three hours every three weeks over a six-month period. The process exposes them to an emotional experience; the aim being to create within each participant a passion for changing themselves as leaders, in addition to a cognitive understanding of the need to change behavior. At the core of the program is a reading list of books and articles selected to challenge participants on an emotional level. Authors include a combination of world leaders from the past (Gandhi and Martin Luther King) and present (Vaclav Havel and Nelson Mandela), writers on leadership (Warren Bennis and Robert Greenleaf), and philosophers (Erich Fromm). The list also includes Mitch Albom's 'Tuesday with Morrie' as an illustration of a mentoring relationship.

The trainer avoids didactic delivery, and in so doing allows participants the space they need to react to the reading material and to personal reflection. The trainer, instead, uses a variety of alternative methods to encourage a personal connection to the material, including: critical incident analysis, journal writing, group discussions, and personal biographies. Differences of opinion within the group are raised in dialogue and are explored openly and with respect.

This is the last of the group's eight meetings, and individuals are sharing what each feels s/he has gained from the program. It is a highly emotional session as each describes a personal commitment to develop as a leader, how s/he intends to deliver on that commitment, and how s/he can continue to use the group as an ongoing learning network. Participants not only talk about their commitment to change behaviors, but also about specific examples of how they are already acting from a new paradigm on leadership. The meeting finishes with a discussion of how participants can spread their passion for change around the organization.

Reflections on the Scenarios

Rational versus Emotional. The first scenario illustrates the differences between rational and emotional actions: the rational design of the program; the trainers' rational justification of their actions; the trainers' experience of frustration, and confusion; and the trainees' experience of fear, panic, and anger. These have been brought into the training room from elsewhere (the trainees' anger towards their manager), been generated by the course process (the one trainee's reaction to role-plays), and been generated through interactions between and among trainees and trainers (the trainers' frustration with the trainees). In this particular case, it appears that the emotions have the upper hand, even though the vast majority of books about organizations emphasize the rational over the emotional (Domagalski, 1999).

Learning the Script. In the first scenario, when the one trainee said, 'This is crap,' consider what emotions the trainers might have experienced but not verbalized (perhaps frustration, anger, or confusion). Similarly, why did the trainees begin the course by withholding information about the exact nature of their feelings? Why did they instead choose the coffee machine as the place to talk about 'being sent,' and 'being under threat,' and to discuss their feelings? How did the trainers and trainees determine which emotions to express and how? These events hint at the influence of display rules on behavior, perhaps through the organizational cultural norm for the display of emotions. The trainees' initial reluctance to share their emotions also emphasizes the importance of trainers creating an environment in the training room where trainees can discuss their feelings openly and honestly, which may run counter to the scripts the trainees are used to in the workplace.

Wearing the mask. If trainers are managing their emotional displays, as the two in the first scenario appeared to be doing, what are the implications for them, their work, and their personal lives? How reasonable is it that organizations require trainers to work with a script that limits the emotions they can show to their trainees? The behavior of the two trainers suggests emotional labor driven from an attitude or belief that trainers should appear to be in control; as such, the two trainers are suppressing and veiling their emotions as described by Hochschild (1983) and Callahan (2000b).

Emotions and their Impact on Learning. Both scenarios illustrate the impact of emotions on learning. In the first, learning was affected in ways described by Hilgard and Bower (1966) and Boud (1989) with trainees' anger towards the manager who sent them, and anxiety around role-plays (possibly generated by past negative experiences, fear of failure, or fear of responses from other trainees). In the second, emotional reactions to course content (reading materials) and design (critical incident analysis and journal writing) appear to have contributed to a passion for learning and a commitment to behavior change. The second scenario reflects some of what Putnam and Mumby (1993) described as the development of mutual affect, connectedness, and cohesion through the sharing of emotional experiences. It also reflects Fineman's (1993) description of emotions as the social glue that makes or breaks gatherings.

Using Emotions in the Training Process. The two scenarios provide illustrations of the need for, and means of using, the five methods for working with emotions in training described earlier in this paper. The first highlights the need for helping trainees to overcome their fears, to create the right environment for discussing emotions, for trainer self-disclosure of emotions, and for helping trainees to explore their emotions (for example, where they inhibit learning). The second case highlights the benefits for the training environment of trainees catching each others' positive emotions for training, and also for the use of a variety of methodologies for encouraging learning that results from emotional attraction to the training content.

Implications and Further Research

Emotions are integral to training: they can influence employees' attitudes towards learning needs and affect decisions about whether or not to attend training courses. They can be brought into the training room, and be generated in response to course material, course process, course context, and social interactions. As the two scenarios illustrated, those emotions can act to hinder the performance of trainers, trainees' learning, and the effectiveness of course designs. They can also act to support learning and behavior change.

Given the evidence of the two scenarios, it would be inappropriate for trainers to assume that training is a solely rational process; that training succeeds only through rational designs and content, and that trainees always react rationally to their need for learning and to the learning process. Avoiding the emotion inherent in training could mean threatening the effectiveness of the training, the well-being of trainees, and the long-term health of the trainers.

- Increasing awareness of emotions in training suggests that trainers could take steps to support trainees as they deal with emotions raised by their learning needs, and by their experiences before, during, and after courses. It also suggests the need to explore:
- Display rules and scripts, and their impact on trainers;
- The extent of emotional labor and dissonance, its consequences, and the support mechanisms needed to help trainers;
- Course designs, to determine the emotional reactions generated in both trainers and trainees, and take actions where those reactions inhibit learning or have negative consequences for trainees or trainers;
- The redesign of courses to use emotions as a way of motivating learners, developing a sense of belonging, and facilitating individual and joint actions. Seven actions trainers could take to redesign courses include: helping trainees to overcome their fear in learning; creating the right environment for discussing emotions; trainer self-disclosure of emotions; recognizing individuals' different emotional needs; helping trainees to explore their emotions; recognizing how trainees catch emotions from each other; and using different training methodologies.

At this stage, it may be too early to state what specific actions trainers should be taking in any given context. For example, there are likely to be situations where the deliberate generation of certain emotions would benefit the learning process, but what are those situations, which emotions should be generated, and how should the emotions be dealt with? There are also such questions to be addressed as:

- How open should trainers be about their own emotions while in the training room, and at what point could disclosure threaten learning?
- Should trainers design processes that deliberately generate certain emotions in learners where it is believed they will aid the learning process, and what if those are negative emotions such as fear or anxiety?
- How should training designers deal with the likelihood that different individuals or groups of people may have different emotional responses to the same situation (e.g. responses differing by gender or culture)?

These are just a few of the many questions likely to be raised by the content of this paper. My hope is that the paper initiates dialogue and further research that answers these and other questions, and therefore enables trainers to better understand the impact of emotions in their training rooms and processes.

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The Planned and Unintended Emotions Generated by a Corporate Change Programme: Managing the Gaps and their Implications for HRD Practice.

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This study investigates the implications of the management of emotions through the increasingly popular culture change programmes on which many large organizations have embarked in recent years. Based on a case study of one such organization, it examines the extent to which the emotional responses of the participants on this programme were congruent with the programme's intentions and the emotive elements designed into the programmes. It finds considerable differences, which it argues are important areas for future HRD research.

Key words: Emotion, Change, Culture.

Research Problem

Managing emotional behaviour as a leverage point for organization change is an increasingly popular concept. This paper investigates the implications of the management of emotions through planned corporate change programmes. It suggests that the emotions produced by such programmes are not always congruent with those desired and invoked by the organizations engaging in such programmes, and that the deliberate managing of emotion may instead lead to unintended and unexpected emotions within the participants of such programmes. Drawing on data from an in-depth study of one such programme, the paper comparatively analyses the emotions *designed* into the programme, comparing these with empirical evidence of the emotions *displayed* by the participants on the programme.

Since the early eighties and Peters and Waterman's (1982) proposition that so-called "excellent" companies are those in which the members are enthusiastic about their work and the goals of the organization, organizations have been endeavouring to discover the most effective means of tapping into emotions within organizations in order to produce enhanced motivation, commitment, and loyalty. Certainly it has now been well demonstrated (Ashforth & Humphrey, 1993; Callahan, 1999; Fineman, 1993; Huy, 1999; Newton, 1995; Turnbull, 1999; Watson, 1994; Wharton & Erickson, 1993) that organizations are emotional places and few scholars would now argue that the rationality and logic once ascribed to organizations by followers of Taylorist thought reflect the lived experience inside organizations.

The concept of emotion, however, has long been problematic, with debates raging between positivists (Kemper, 1981, 1990), psychoanalysts (Schwartz,1987; Sievers,1986) and social constructionists (Fineman, 1993; Hearn, 1993; Hochschild, 1979,1983) about the nature, origins and controllability of emotion. This disagreement about the meaning, origin, and controllability of emotions may be one explanation for the limited number of studies which endeavour to uncover and advance our understanding of the nature of emotions in organizations. Yet it is clear that this lack of research into our understanding of the emotional life of organizational players has not hindered or deterred the continuing enthusiasm in organizations for change programmes and initiatives which appeal to the emotions in a number of ways.

This 'cultural approach' to managing organizations proposes a range of techniques for managing change through the management of meaning and symbols (Deal & Kennedy; Kotter & Heskett; Schein, 1985). Missions and visions, the symbolism of excellence and enterprise; self- actualisation and achievement are all laden with semiotic and emotional meaning designed to create change in organizations at the most fundamental level: the level of feelings, beliefs and deep-rooted values. However, the lack of scholarly research into the implications of this trend for the individuals within these organizations has also been problematic for the HRD community who seek to measure and evaluate the benefits and impact of such programmes. This has meant that support for the conscious management of emotions has often been a matter of "blind faith", with little empirical evidence beyond the persuasive arguments of the gurus (Deal & Kennedy,1982; Covey, 1992; Goleman, 1996; Peters & Waterman, 1982) that such initiatives are able to produce the desired emotional outcomes and in turn the required results.

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In this paper I wish to raise the profile of this research agenda, and to stress the need for scholars to focus on the emotional *outcomes* of such programmes, in order to better understand the responses of their recipients to the messages contained within them. I will suggest that it is both limited and limiting for the HRD community to consider in isolation the most effective means of managing and controlling emotion for instrumental purposes, and that attention should first be paid to the impact of such programmes on those participating in them and the implications of this for the organizations in which they work. In particular, I will raise issues relating to the long term impact of these programmes on the well-being and emotional stability of those subjected to them, particularly in organizations with a tendency to engage in the repeated and indiscriminate use of "initiatives" and fad-following.

Theoretical Frame

Stephen Fineman's seminal book "Emotion in Organizations" (1993) has argued for a major research agenda to shape our understanding of how emotion affects organizational life. Drawing on both social constructionist and psychodynamic theory, he argues that "emotions are within the texture of organizing" and "that emotions are central to the constitution of the realities that we so readily take for granted in our working and organizing." (Fineman, 1993, p. 1). Hosking and Fineman reinforce this argument, lamenting the omission in organizational theory of emotional processes in organizations (1990). Since Fineman's plea for more attention to the affective domain within organization life a number of scholars have begun to address this issue. The emotive power of the excellence and enterprise discourses over the members of an organization has, for example, been explored by Du Gay (1996) who suggests that the current success by organizations in appealing for self directed, enterprising individuals may be due to an alignment between this discourse and the natural desire for individuals to create their own identities. Indeed organizations are often seen as providing a sense of identity, belonging and a clear focus in return for increases in motivation, commitment, productivity, and reductions in turnover and absenteeism. Casey (1995) warns, however, that such an apparently simple formula can have wide ranging and counter-productive effects when it is associated with the management of emotions. She notes, for example, that some work environments in their attempts to motivate their employees seem to foster the unhealthy use of aggression, competitive behaviours and "the excessive pursuit of power and grandiosity" to achieve the commitment and effort they seek, and argues: "The implications of corporate workers suffering from "modern madness" in their places of work are considerable" (Casey, 1995, p.84).

This concern is echoed by Fineman (1995) who warns: "Stressful feelings may occur in two ways. The first is when...the mask cracks. The tension between inner feeling and the requirement of outward display is simply too great. The second is when the masks and the inner feeling become fused; the company's message is taken to heart to the extent that people begin to lose touch with their own feelings" (p. 130).

An important ethnographic study by Kunda (1992) explores the management of emotions in the Tech Corporation[1] in the USA. This company possesses a very strong normative culture with deeply embedded symbols and structures that control the emotions and values of those within this culture. Kunda expresses concern at the strength of feeling which he encountered during his research in Tech, and asks a number of important questions in relation to the planned and unintended emotions generated by the organization's strong culture: "Are the people whom we encounter there happy automatons? Do they think of their experiences at work as authentic expressions of themselves or as stylized roles? Is the Lyndsville engineering facility a prison or a playground?" (Kunda, 1992, p. 17). Kunda also encounters confusion about roles and identity as a result of such tight organizational control on emotions: "Although they exhibit signs of acceptance, they also indicate considerable wariness and even a degree of cynicism about the company's expectations, even as they are investing their efforts, planning to get ahead, or contemplating the price of failure. They all seem just as much observers as actors...many are in the potentially confusing situation of being at once agents and subjects of this kind of control" (Kunda, 1992, p. 21).

This paragraph resonates with many of the concerns of this paper, and illustrates the complexity of using emotional behaviour as a leverage point for organizational change. Indeed, Kunda's study found that the organizational members had developed a range of methods for coping with the emotional pressures imposed by the extreme expectations of the Tech Corporation. He found that managers in Tech often denied any emotional attachment to their work; depersonalized their work actions, seeing them as driven by different moral codes from those adopted in their personal lives; and often dramatized events for a purpose. Kunda labels these behaviours *denial, depersonalisation* and *dramatization*

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[1] a pseudonym

Research questions

This study investigates the implications of the management of emotions through the increasingly popular culture change programmes on which many large organizations have embarked in recent years. In particular it investigates Casey's concerns that through emotional control we are creating a "modern madness" and "maladaptive" employees in our organizations, Fineman's warnings about the potential stress of following "feeling rules" and the danger of losing touch with our inner feelings, and Kunda's findings that the employees in his study were resorting to various distancing techniques to cope with the emotional pressure .The research sought to elicit accounts of the responses of a group of these participants in order to understand the emotional impact of this programme and to examine how it affected their beliefs, values and self-identity. It examines the connection between the deliberate managing of emotion through a predetermined and planned programme, and the emotions felt and exhibited by the participants on the programme. It then investigates the extent to which the emotions triggered were these desired by the organization, and explores the implications of any gaps identified between the planned and the realised outcomes for HRD practitioners.

Research design

This study focuses through a single case study on a major corporate change programme designed to introduce five new "values" to fifteen hundred "middle managers" in Aeroco, a large UK-based engineering corporation. The research adopts a social constructionist approach to interpret the responses of the participants. It does not seek to generalize, but to understand and interpret the case in order identify issues of potential significance HRD theorists and practitioners dealing with similar issues in other organizations.

The Programme

The programme was designed and run by a leading consultancy, and run over a twelve month period. Each manager was required to attend all five three day workshops--one for each of the newly declared corporate Values. The Values were labelled *Innovation and Technology, Customers, Partnerships, Performance,* and *People.* Beyond these brief labels the participants had little idea of how these might be interpreted prior to embarking on the programme.

The *Innovation and Technology, Customers, Partnerships,* and *Performance* modules were large scale residential events run for 100-150 managers over three days. The style of these modules was one of considerable drama. The sessions were designed to arouse emotions such as passion, excitement, and loyalty in the delegates. Hence rousing music, special stage effects, and dramatic sequences were prevalent in the plenary sessions, a style which was alien to many of the attendees whose backgrounds were predominantly engineering or technical and who were 95% male.

The *People* module was run for groups of eight, each with its own psychologist as facilitator. The content was based on a few psychological models of human interaction. eg. transactional analysis (Berne, 1996). The sessions were intense, self-revelatory, and emotionally-charged.

The purposes of the programme were to bring about major cultural change by fostering a more collaborative style of management, greater cross business-unit collaboration and a common sense of identity.

The programme's style was designed to appeal to the emotions of the participants in a number of ways. It openly encouraged a shared passion and enthusiasm for the goals and missions of the organization, a strong sense of loyalty and commitment to colleagues, feelings of belongingness such as those felt at the heart of a family, a sense of pride, and a trust in top management to deliver a higher ideal.

The empirical research spanned 20 months. 56 in-depth interviews were carried out across 8 business units and 14 sites, prior to and during the early months of the programme. In addition all five modules, each lasting two or three days, were attended as a participant observer, providing the opportunity for numerous discussions and deeper contact with 48 further participants. Second interviews were conducted twelve months after the initial interviews with fifteen of the original interviewees. The shift in the values, beliefs, attitudes behaviours and emotions expressed as a result of the programme were then analysed thematically, drawing directly from the transcripts of the accounts of the participants.

It was recognised that this separation of the cognitive from the affective was a necessarily artificial distinction applied for the purposes of the research. The choice of semantics to describe the specific emotions encountered in the research was drawn as often as possible from the participants' own words. However, it is acknowledged that at times where this was not possible it was necessary to act as interpreter and to make linguistic choices in order to express these emotions.

The research focused specifically on the *consumption* of the messages of the programme, therefore detailed questions relating to the *production* and intent of these messages from the perspective of the corporate management was largely beyond the scope of the study. However, the research did include an analysis of the emotional style, content and delivery of the programme.

Research Findings

This section will focus specifically on comparing the emotions *designed into* and *invoked by* the programme with the *emotional* responses displayed by the managers.

The emotional responses of the managers at the beginning of the programme were diverse. These responses ranged from the complete capitulation to the corporate message in the form of a religious conversion of those I have labelled the *evangelists*, to various forms of detachment such as *open cynicism*, slightly more ambivalent *scepticism*, or *play-acting*. In addition there were *detached professionals*, groups of scientists, lawyers, and accountants who believed that the programme did not apply to them but was good for others; and finally a small group of *critical thinkers* who were able to intellectualize about the rational of the programme, and its inherent problems.[2]

Many of the positive responses reflected the intentions of the programme's design: excitement, hope, and trust; but others were less positive, rejecting the appeals for enthusiasm , instead displaying fear of failure, cynicism and "fad fatigue" (Pascale, 1990). Most of the disagreements surrounding the initial responses were concerned with whether this programme was likely to be any different from earlier initiatives with similar purposes, all of which had eventually failed. Many were prepared to trust the words of the CEO that this time the programme would be enduring, and "not just another initiative" but others were much more cautious. The following summarises some of the key differences between the planned and unintended emotional responses to the programme.

1. Planned Emotional Response to Programme: High levels of trust leading to openness, sharing, risk-taking and innovation.

Unintended Emotional response: Mistrust and fear of blame leading to risk-averse behaviours.

This programme was being introduced into an organization in which strong feelings of rivalry and mistrust across the sites and functions were much in evidence: "There's still a lot of in-fighting, very competitive...There's a lot of point scoring, there's still a lot of status around this organization" (Steve).

Such strong preexisting feelings were found to be highly significant in affecting the emotional responses of the managers to the content and style of the programme.

Political rivalry had also been the norm as described by Ian in summing up the game-playing he had experienced when he moved into a new business unit: "There are some very clever people in this division, outstandingly clever people and they play intellectual games, they play intellectual one-upmanship, challenge and all sorts of strange things and the first time you meet them you have to prove you can hack it like they can intellectually or you can't be considered to be worthy to come to the table, and they play very hard."

2. Planned Emotional Response: Strong feelings of loyalty to the organization.

Unintended Emotional Response: Confusion and tension between desire to belong and fear of being controlled.

"He is bonded to them in displays of rejection" (Mangham & Overington, 1987, p. 45) This paradoxical description of the relationship between a senior manager and his middle management team is illuminating. Despite the many displays of resistance on the part of the managers throughout the programme, they nonetheless demonstrated enormous displays of loyalty and commitment to these same hero figures in the organization.

Paul, a recent recruit into the organization indicated the turbulent emotional experiences he had encountered when dealing with senior management, drawing on all of Kunda's coping techniques. First he *denies* that he cares, then he talks of *detaching* himself in order to cope more easily with being criticised at work, and he is very prone to *dramatizing* in the strongly emotive language that he deliberately employs: "What strikes me constantly... and this is a personal observation, is the duplicitousness of senior management in any organization, I mean sheer (pause) I've overstepped the mark with some of the things I've said, but it's almost the sheer dishonesty of senior managers in the way they operate, the ruthless ability to manipulate people. Now if you're sensitive you're not going to survive for that long...I am sensitive but at the end of the day I don't care enough any more...It's self -protection. If I did care I couldn't cope with the job. I will go much further in the job if I preserve an element of independence of spirit and I do think that's an element for success. I suspect that most successful managers in this company leave the office behind them when they leave it. Now they will deny that I suspect, but I suspect that they're not as emotionally attached to the business as some of the less senior managers. I don't know, but that's just a hunch...Then there's the other side of management, which is that when they sit back and rationally think about the business and the future of the business as opposed to the day to day stresses of the business, they do look at what makes a successful business and at the end of the day if you are loyal to your company and if you have a passionate desire for your company to succeed (and I think all the senior management have both of those qualities) even if they leave it behind them when they leave, you can see that you have to engender that spirit of devotion to the company".

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[2] See Turnbull (1999) for a full discussion of these response types.

The interviews with the managers suggested an ambivalent relationship between the middle managers and the executives of the company (a distinction which has often been overlooked by previous research.) On the one hand the programme was creating feelings of comfort and security: "We need this programme desperately", yet simultaneously the middle managers could be heard questioning the motives of those responsible for the programme. *Can they be trusted? Are we being brain-washed? Do they mean what they say* were leitmotivs throughout the programme.

3. *Intended Emotional Response:* Spontaneous passion for organization's ideals and commitment to the programme.

Unintended Emotional Response: Self-consciousness and embarrassment.

A great deal of self-consciousness and embarrassment was evident as the managers began to display the behaviours and adopt the language of the programme. This embarrassment was demonstrated and often diffused by the use of humour and in particular irony as demonstrated below.

Researcher: "Which modules has your Director been on?"

John: "Well he's been on this one, oh dear, this sort of psychology one, where they've been...getting in touch more with their emotions or something (laughs)"

Embarrassment at complying too readily with the new values and feeling rules was often alleviated by self-mockery or to mock the behaviours of others:

> "They're all key, they're all inter-dependent and the five values have got to be worked with in unison, in harmony. Gosh! I'm not sure what's coming out! (laughs)....and you know the thing that is important is that if we are going to be successful, yeah, is that from the top to the bottom people don't actually recite it like I'm doing at the moment, OK. Because reciting something is dead easy, anybody can do it, yeah. Believing it and actually acting it is something different"

Clearly humour was very powerful mechanism for assisting the Aeroco managers to communicate their feelings of embarrassment or self-consciousness without the risks associated with direct or explicit confrontation.

4. *Planned Emotional Response:* Enthusiasm for new corporate values and full assimilation into beliefs, values and behaviours of all corporate members.

Unintended Emotional Response: Stress as a result of feeling pressure to display behaviours not matched by feelings.

"You have to aim to be someone else" (Ian).

One of the recurring frustrations of the managers in Aeroco was the perception that they were expected to adopt the behaviours specified by the senior management of the organization, irrespective of whether this represented their "true selves". In the past, competitive, loud, and "macho" style behavior had been rewarded. The rhetoric of the change programme, however, was now demanding that they adopt a new set of "feeling rules" (Hochschild, 1983) with an emphasis on openness and trust. These messages, reinforced by the "People" module, were encouraging the sharing of feelings and causing considerable discomfort for these managers, most of whom had operated successfully under the old feeling rules, which had demanded the suppression of emotions and the emotional resilience to withstand blame, anger, criticism and aggression.

Ian complains about the stress imposed by role playing: "I mean I know Phil quite well socially and he feels what I feel, that you can't be yourself in this place. You can't facilitate changes doing it in the interactive way you want to. You have to be more forceful. You have to aim to be someone else. The team that I have got at the moment have realized now I think, which is a shame."

Whilst some chose to comply with the demands of the programme as a way of coping with the pressure on them, others were found to be resorting to *mental distancing* or *resisting* (Knights & Willmott, 1999) which may illuminate the often contradictory behaviours of the Aeroco managers, and explain their often paradoxical behaviours. The positive responses to the programme when it was launched, yet the ambiguous and uncertain responses to being part of it, the enthusiasm for the intimate style of the "People " module, yet the simultaneous fear at the level of disclosure required by this event; the desire to "network" across the organization, yet the fear that others are not to be trusted are all seen to be emotional pulls on the Aeroco managers which were not predicted nor taken into account when the programme was designed.

Conclusions and implications of the study for HRD

One of the most unexpected but perhaps inevitable outcomes of the programme was to cause the managers in the study to think very deeply about their roles and their relationship with the organisation. In reality this meant considering their relationships with colleagues, subordinates, senior managers and with the organizational rhetoric and symbolism in which they were playing an integral part. It was also frequently found to lead to a reconsideration of their self-identities.

This increased reflexivity in role, however, remained largely undisclosed in the company of peers, as it was still considered to belong to the private domain. Consequently, much change appeared to be taking place in the cognitive and emotional lives of the managers on the programme that was neither visible nor indeed measurable by the various evaluation instruments adopted by the company, as even those managers who said that they had undergone a personal transformation or "conversion" were unable to or fearful of carrying out the changes they desired in a workplace which was paradoxically hostile to the new management style it was seeking to introduce.

This conclusion adds to the earlier finding of Ogbonna and Wilkinson (1990), whose study of a corporate change programme established the popular view that many corporate change programmes achieve little more than "resigned behavioural compliance". The present study also found many examples of resigned behavioural compliance, but missing from Ogbonna and Wilkinson's findings is the notion of personal transformational change which took place for a number of individuals in Aeroco, but was never expressed in the workplace due to the cultural constraints already outlined. This is an important discovery of the Aeroco study, as it implies a change in underlying values which is not translated into behaviour, the converse of Ogbonna and Wilkinson's concept.

It was clear from this study that the managers were finding it very difficult to change in the way anticipated by Aeroco. Many of them were long servers, and had been rewarded and promoted for many years on the basis of the old style "macho" behaviours. To change these behaviours was felt by the majority to be both embarrassing and difficult to achieve, resulting in much evidence of "reverting to type", which unfortunately often resulted in anger, cries of hypocrisy, and increased mistrust between senior and middle managers. Certainly there was some evidence of the Aeroco managers having become "maladaptive" in Casey's terms as a result of the deeply embedded "macho" culture. Learning to express feelings in the workplace and to develop interpersonal sensitivity was felt to be very awkward for these managers. Even those who appeared to have undergone radical personal transformations as a result of the programme were finding it very hard to change their behaviours, fearing that they might be mocked.

The managers' accounts demonstrated numerous examples of Kunda's *emotional distancing: denial, depersonalisation and dramatization. Dramatization* was a constant feature of the five modules themselves which were deliberately hyped up to create emotion in the participants. This had the desired effect on some, but for an organization which has for many years repressed its emotionality and is 90% composed of male engineers it was perhaps unsurprising that many rejected this call for overt expression in favour of employing a *distancing* from the event which then led to many hours of self-justification and explanation to peers, superiors and even to themselves to account for their non-participation in what was deemed an important display of loyalty to the organization.

The emotions generated by the Aeroco programme were intense, but in many cases varied considerably from those intended by the initiators of the programme. This raises some important issues and questions for those involved in understanding emotional behaviour as a leverage point for organizational change, in particular the extent to which emotional response can be planned and controlled, the factors which influence these responses, the impact of communities of practice (Lave & Wenger, 1991) on the social construction of the emotions, and the impact of the unforeseen emotional responses on both the individuals themselves and the organizations to which they belong. It also raises a number of ethical issues regarding our understanding of the long term repercussions of such programmes on the participants, and indeed on the long term sustainability of values imposed in this way, particularly in organizations which themselves are constantly changing in shape and membership.

The impact of corporate change programmes such as the one introduced by Aeroco is clearly more complex than is implied in much of the current literature on organization change. Emotions do play an important part in leveraging organizational change, but as illustrated in the Aeroco case, there are likely to be unforeseen and unexpected emotional responses as a result of any HRD interventions, and these require a deeper understanding than has previously been acknowledged. Greater awareness and attention to the consequences of such changes, will lead to more informed and more effectively executed change programmes and more sensitive handling of human emotions in the process. Whilst this study has focused predominantly on the short term emotional responses of managers undergoing the Aeroco change programme, there is clearly a need for further research into the impact and long term consequences of emotional labour in organizational change programmes. Although there are obvious problems with such studies, not least the difficulty in identifying and interpreting emotion, this study has demonstrated the importance to the HRD community of understanding the emotional responses and behaviours produced by such programmes.

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Conceptualizations of Emotional Behavior in Organizational Contexts: A Framework for Understanding the Implications of HRD Research and Practice

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This paper explores paradigmatic lenses to the study of emotional behavior in organizations. These paradigmatic approaches are represented by the interconnection of objective-subjective and emergent-managed continua regarding emotional behavior. We contend that the ways in which we conceptualize the nature of emotion and its role in organizations have profound effects with regard to both theory development and practical interventions. A schema of four overlapping approaches to emotional behavior practical interventions are also presented.

Keywords: Emotional Behavior, Paradigms, HRD Interventions

"We teach and preach on organizational life and management, usually acknowledging that our subject matter can be a bit messy--because people are not like machines. But at the same time we fail to square up to the essential emotionality of organizational processes…"
(Fineman, 1993, p.1).

In the organizational context, the study of emotion has often been focused on such elements as job satisfaction and employee stress. Since the late 1980s, however, journals in fields related to organizational theory have increasingly published empirical and theoretical articles related to the role of emotion as a distinct phenomenon vital to organizations. As a result, a wide variety of perspectives regarding the research of emotion have surfaced. A number of articles have attempted to categorize these streams of research (e.g., Domagalski, 1999; Gallois, 1993; Hochschild, 1983). However, each of these articles, whether implicitly or explicitly, uses the distinction of psychological and sociological approaches to the study of emotion to distinguish between streams. We argue that another approach to capturing the streams of research is more applicable to the multidisciplinary field of Human Resource Development.

Background

Because HRD is traditionally grounded in organizational contexts, much of the theory associated with the field has been influenced by the rational traditions of theorists such as Weber, Taylor, and Fayol (Sashkin, 1981). These traditions call for the cognitive "dehumanization" of organizations. However, recent physiological findings regarding emotion in individuals have revealed that cognition does not operate alone (Damasio, 1994; Derryberry & Tucker, 1992). In fact, Damasio, among others, claims that emotion is as indispensable to effective functioning as is reason. Clearly, HRD theory must expand to include the emotional component of human systems, both individual and collective. By providing a multidisciplinary perspective of the subject of emotional behavior and organizational change, this paper offers new ways for HRD professionals to theorize about emotional behavior as it relates to fundamental organizational actions.

While we speak of "emotion" as if it were a clear and commonly understood term, in fact, this is not the case. As we noted earlier, HRD scholars have approached the study of emotion in the organizational context from a variety of viewpoints. Associated with each viewpoint, however, are particular sets of theoretical biases. It is our contention that the ways in which scholars and practitioners conceptualize the nature of emotion, and its role in individual and organizational functioning, can have profound effects. Scholars ask questions, and practitioners intervene, based on how they conceptualize the nature and role of emotion in organizations. Thus, different conceptual frameworks can take us in very different directions. Unfortunately, little work has been done to either describe the ways in which emotion has been viewed in the HRD literature, or the scholarly and practical

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implications of these various views. This paper will provide a framework within which approaches to the study of emotion in organizations can be located and the theoretical biases of each approach explicated. Most importantly, this paper provides a mechanism to answer the calls made for the need to explicitly link emotional behavior with organizational dilemmas (Fineman, 1993; Morris & Feldman, 1996).

This paper also has a more fundamental connection to the advancement of theory in HRD. Weick (1999) noted that some theories "seem to matter more than others" (p. 134) in influencing the practice in and study of organizations. After an overview of some of the most powerful or "moving" theories in organization studies, he and Peter Frost concluded that one of the common factors in all of these theories was that they centered on emotion. By making emotional concepts explicit in a multidisciplinary understanding of organizational phenomena, the schema presented in this paper will enable HRD scholars to better incorporate the emotion that contributes to powerful theories.

Whether one makes the case for learning as core to the HRD profession (Watkins & Marsick, 1995) or for performance as core to HRD (Swanson, 1995; Swanson, 1999), emotion is integrally connected to each. Dewey (1916/1944) pointed out that the development of intellect cannot be separated from the emotions, that how we perform in the course of "doing" is tied to our subjective feelings about the action. Indeed, in some learning theories, emotion drives learning directly, as is the case with Mandler's interruption theory (Bower, 1994). From a collective perspective, emotion has critical importance to group functions. As early as 1925, Lindeman (1925) argued that,

> The real meaning of the group and its processes is presumed to be something which is affected by what the group actually does and its rationalizations of what it does. Emotions, prejudices, habits, customs, mores, sentiments--all of these enter into the rationalizations. To assume that they are unimportant parts of the group's behavior-pattern is to eliminate some of the very mainsprings of human action and behavior (p. 193).

Some authors would go so far as to claim that the division of human activity into thoughts, feelings and actions obscures their fundamental unity, be it within or without organizations (for example, see Efran & Blumberg, 1994). From this perspective, debates about the "place" of emotion in organizational functioning are nonsensical since emotion pervades all human activity and is inseparable from it. Attempts to partial out the effects of arbitrarily determined components leads to the danger that the emergent properties of human enterprises will be missed. While we agree with this view in principle, we concur with Efran's contention that it is "both permissible and necessary to make conceptual distinctions in order to map a terrain, but these cleavages must be acknowledged as human-made and artificial. They should be maintained only as long as they are useful to the task at hand" (p. 191). In this spirit, we offer the framework in this paper as a tentative map of the territory, one that needs constant evaluation and refinement to move us closer to a holistic understanding of human organizations.

A whole host of issues associated with learning and performance fall under the rubric of HRD and can be informed by an understanding of the influences of emotional behavior. For example, Maddock and Fulton (1998) argue that the substance of leadership is motivation and the essence of motivation is emotion. This stance is consistent with research in the field of psychology, which posits motivation as one of primary functions of emotion (see Oatley & Jenkins, 1992 for a review). Taking an organizational approach, Cooper and Sawaf (1996) argue that emotional intelligence influences creativity, communication, teamwork, and customer loyalty. Deming (1986) proposed that one of the most crucial elements of improving overall organizational productivity and quality was driving fear out of the workplace. Watkins and Marsick (1993) continue that thought when they suggest that fear in the workplace "threatens the very fiber of the learning organization" (p. 254). The list can go on and, as seen in the examples above, can be found in both scholarly and popular literature. All of these issues can be informed by a better understanding of emotional behavior in organizations. Thus, the function of HRD professionals as developers of individual and collective performance and learning provides a unique perspective on the emotional component of organizational life.

Multidisciplinary Approach to Emotion Research

Traditionally, organizational researchers have focused on cognition to the relative exclusion of emotion. However, in more recent years, that focus has begun to expand to include conceptualizations of emotion. The growing literature in emotional intelligence suggests that there is some link between cognitive and emotive processes (Daus & Tuholski, 2000). Further, research has demonstrated that emotions can both positively and negatively related to cognitive processing (e.g., Damasio, 1994; Fineman, 1993; Mayer & Salovey, 1997; Thoits, 1996). As the referenced examples indicate, this interconnectedness of emotion and cognition can be found in literature from psychology, sociology, neurology, and more.

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This paper offers a new way to conceptualize the study of emotion management in organizations or other social systems. Rather than artificially separate the approaches to emotion research along disciplinary lines, this paper provides a framework for the study of emotion that combines both psychological and sociological approaches under the rubric of paradigmatic lenses of emotion research. We see this framework as the intersection of two continua rather than as the construction of separate conceptual boxes into which a theory or an approach must fit cleanly. One axis of the framework describes the relative emphasis on the subjective experience of emotion versus the objective observation of it. The other axis is used to locate the view of emotion in the organizational context as either being something to be controlled and managed, or something that should be helped to emerge to promote optimal organizational functioning. For heuristic purposes, we have chosen to describe "pure" or polar representations of each of the quadrants in this paper. We remind the reader that most approaches to dealing with emotion in an organization will fall nearer the mid-point of the two axes of our framework and, in fact, may share aspects of each of the four quadrants.

Each of the four perspectives offered in the framework can incorporate what might be considered "psychological" and "sociological" approaches to the study of emotion management. The following subsections include a description of each approach and offer suggestions for future research that incorporates both individual and collective perspectives of emotion management. The four representations can be depicted as in Figure 1 below:

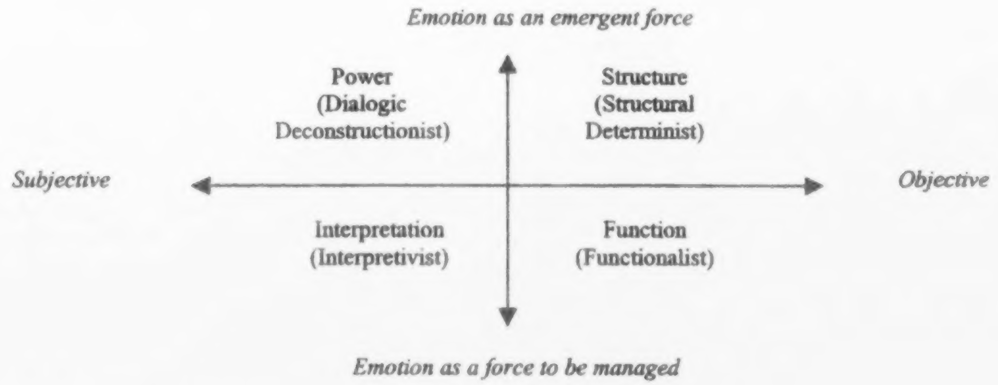
Emotion as an emergent force
Power (Dialogic Deconstructionist)
Structure (Structural Determinist)
Subjective
Objective
Interpretation (Interpretivist)
Function (Functionalist)
Emotion as a force to be managed

Figure 1. Paradigmatic Perspectives of Emotion Management Research

Function

This perspective emanates from the fundamental question of "What is the function of emotional behavior in this organization?" The more traditional, 'functional' approach to emotional behavior in organizations is grounded in the biological or organismic (Gallois, 1993; Hochschild, 1983) conceptualization of emotion. This paradigm looks at emotions from a more objective, or "outsider," perspective and perceives emotion as a force that must be managed in order to achieve greater effectiveness. The objective orientation associated with this perspective tends to view emotion as a non-rational, and therefore potentially disruptive, force. Because the biological or organismic focus of this paradigm is more explicit, it may be perceived as a psychological paradigm.

Nevertheless, from a social or relational perspective, this paradigm may be interpreted such that emotions are extant phenomena that must be managed to maintain order. Emotions are a part of organizational life, so we need to have a basic understanding of them and measure their effects in order to manage them better. Further, because of emotion's presumed disruptive nature and interference with cognitive functioning at higher levels of intensity (Oatley & Jenkins, 1992), individuals cannot be expected to accurately report on the emotional forces they experience. Thus, the objective observation and measurement of emotion and emotional behavior by an outsider makes the most sense from this perspective. Because this paradigm incorporates an inherent 'outsider' perspective, the management of the emotions of *others* in the social context is an important area of study within this stream. Also, the categorization of rules of emotion management, similar to Goffman's (1959) presentation rules, would have an outsider's perspective of how social systems deal with the management of emotions in order to maintain order and stability.

From a psychological approach, this representation of emotion is aligned with scholars such as Darwin, Freud, and Bowen who argue for rational supremacy. This approach holds that emotions are relics of earlier evolutionary states and, therefore, are generally maladaptive in current circumstances. The implication of this psychodynamic tradition is that emotions must be managed or controlled in order for healthy functioning to occur.

A counter-perspective that also falls in this representational quadrant holds that emotions are indeed part of our evolutionary legacy but are nevertheless adaptive in current circumstances. This tradition, associated with attachment theorists such as Johnson and Greenberg (1994), holds that emotions help govern goal priorities within people and communicate intentions between people in ways that promote survival and positive adaptation. Emotions act as a signaling system that can be managed in order to organize social interaction.

Interpretation

This perspective focuses on how and why organizational members interpret emotional behaviors and their subsequent responses as a result of that interpretation. The 'interpretive' approach to emotional behavior is more closely aligned to the social constructionist (Gallois, 1993; Hochschild, 1983) conceptualization of emotion. This is a more subjective, or "insider," position; it looks at emotional states as social performances rather than basic states of the individual. This paradigm seeks to understand the nature of emotion in social contexts while still perceiving emotion as a force in the organization that is, or needs to be, managed. From the relational perspective of this paradigm, emotions are created or constructed as part of a common sensemaking process in social structures. In order to maintain or appropriately recreate the common meaning, these emotions must be managed. This approach can be seen as the roots of the sociology of emotion stream of research. Much of the early work associated with this stream emanated from this interpretive perspective of the management of emotions in social contexts.

In individual psychology, social constructionism knits together the realm of the personal and the social. Provisional realities emerge from the interplay of personal constructions of the world and their usefulness and congruence in the social context. From this perspective the individual is seen as an open system whose boundaries with the social context are somewhat diffuse. Weick's (1995) concept of sensemaking is an example of this approach to understanding organizational behavior.

Hochschild's seminal work can also be seen from this perspective (Hochschild, 1983) as well as Rafaeli and Sutton's research on the management of emotions among clerks, law enforcement professionals, and bill collectors (Rafaeli & Sutton, 1989; Rafaeli & Sutton, 1991). While this research did not explicitly emphasize the creation of common sensemaking, it did focus on interpretive patterns of emotion management. On the other hand, the research by Pogrebin and Poole (1988, 1991) does explicitly highlight how police offers use the management of emotion to create and maintain a culture unique to the law enforcement profession. Callahan's (1999) study of a military nonprofit association revealed the strength of emotion management in maintaining cultural patterns perhaps to the detriment of the organization.

Power

The power approach also takes a social constructionist perspective, but views emotion as an emergent force that facilitates organizational change as opposed to a force that needs to be managed in order to achieve organizational change. The roots of this perspective are closely tied Freire's (1970) conceptualization of dialogue. In this conceptualization, emotion is an emergent force underpinning dialogue that cannot "serve as a crafty instrument for the domination of one man by another" (Freire, 1970, p. 77). In attempting to understand emotion from this perspective, dialogue is both the subject and the object of the deconstruction of organizational action. Thus, we call those who act within the power paradigm of emotional behavior "dialogic deconstructionists."

A key distinction seen in the sociological perspective of this paradigm is that the management of emotion is a manifestation of domination by power structures. This power domination minimizes the human power of emotion as a force for development both individually and collectively. This perspective dominates current sociology of emotion research. Examples include Turnbull's (1999) assessment of power influences over middle managers contributing to emotion management and Fineman and Sturdy's (1999) study of the interaction between power structures and emotion management.

At the individual level, various approaches look at the influence of social power structures as determinants of individual experience. Narrative therapists, such as White and Epston (1990), for example, draw on the work of Foucault and other deconstructionists and examine how dominant societal narratives provide the structure in which individuals are forced to locate their experience. Narrative therapists are especially interested in how dominant narratives become oppressive, that is, how they create the experience of abnormality in people whose individual experience do not fit cultural norms. Feminist therapists (for example Walters, Carter, Papp, & Silverstein, 1988) have looked specifically at how social constructions of gender limit individuals' perception, and expression, of certain aspects their own experience.

Another individual level approach associated with dialogic deconstruction is the humanistic tradition. From this perspective, emotions are the product of a deep inner self and act as the guideposts for authentic action. Emotions act as emergent properties that must be expressed in order to achieve optimal organizational effectiveness.

Structure

Finally, this perspective emerges from a desire to understand both the concrete and abstract organizational structures that influence and are influenced by emotional behavior. Those that follow this approach could be considered 'structural determinists.' This approach looks at emotion from an outsider's more "objective" perspective while continuing to see emotion as a positive force for change. The collective level perspective of this paradigm holds that emotions are inherently embedded in the unequal structures of society and the management of those emotions creates the energy that drives change. This perspective can be seen in Martin, Knopoff, and Beckman's (1998) overview of bounded emotionality at The Body Shop. This research highlights the importance of knowing when and how to use emotions in order to facilitate change for individuals and organizations. Another classic example of this paradigm is Collins' exchange conflict theory that focuses on the exchange of emotional resources between those in differing structural positions in the social system and the use of rituals to diffuse tensions between those with unequal positions (Turner, 1991).

The individual level of this perspective sees emotion as a fundamental component of the narratives people use to explain life as it happens to them. As individuals, we tend to 'couple' with social structures through the medium of language such that who we are and what we feel changes depending on our context. For example, Efran (1994) argues that people belong to a variety of interpersonal 'clubs', or structures they are coupled to, each of which prescribe a range of actions and experiences. Sometimes the rules of the various clubs we belong to conflict resulting in predicaments known as 'emotional 'contradictions.' This is seen in particularly vivid detail when cultural expectations conflict. As one of our students, a Latino man, said, "At work, I'm supposed to put work first, while at home I'm supposed to put my family first. I can never satisfy everyone."

Contributions to the practice of HRD

This paper is most relevant to helping organizations solve problems associated with rapid change by revealing and resolving a critical source of *resistance* to change. Schein argued that the emotion fear was the underlying factor in the failure of all organizational change efforts (Quick & Gavin, 2000). If practitioners can minimize the negative effects of emotion and maximize the positive effects of emotion, organizational change efforts can be more effective and efficient for both individual and collective.

In general, these varying perspectives of emotional behavior have a number of implications for HRD interventions. Because the development of both the individual and the organization are fundamental to the core beliefs of HRD (Ruona, 2000), the integration of psychological and sociological perspectives should guide our interventions associated with emotional behavior. Certainly the perspectives offered here demonstrate that emotional experience and expression is a powerful tool for reorganizing interactional positions within the organization. Another implication grounded in our interdisciplinary framework is that new feelings produce change; the way we experience and express those feelings can be manifested in different ways and yet still result in individual and organizational change. Finally, making explicit the various theoretical perspectives creates "theoretical flexibility" for both scholars and practitioners. For example, when practitioners find themselves "stuck" in an organizational change effort, this schema could help them make an informed decision about what alternative interventions might be useful, thereby avoiding a "more of the same" cycle.

Although they differ in their approach to emotional behavior, as a whole, the four perspectives offered here demonstrate that emotion provides information necessary for optimal functioning in human systems. Each of the represented perspectives works with the information that emanates from emotional behavior in different ways. Again, the application of these paradigmatic lenses is not mutually exclusive; it is reasonable, and perhaps desirable, to consider incorporating interventions that are oriented to multiple perspectives of emotional behavior.

Interventions associated with the functionalist perspective would be oriented toward controlling emotions by means of cognitive or rational understanding in order to facilitate smoother interaction in the organization. A practitioner working from this perspective might emphasize such things as individual stress management based on a cognitive-behavioral framework in hopes of dampening the effects of individuals' emotion experience on the organization. Other types of employee wellness interventions might include the establishment of Employee Assistance Programs or family friendly policies such as child or elder care support. Another typical functional approach to addressing emotional behavior might include a review and possible reallocation of resources. An imbalance of resources might lead to emotionally laden conflict that a functionalist would want to minimize. Finally, a very simple functional approach to dealing with emotional behavior would be to ensure information is readily available on issues that may otherwise lead to undesired emotions. A functionalist would argue that, if people had accurate information, rumor and gossip would be unable to generate unfavorable emotional behavior.

Interventions in the interpretivist tradition would explore the contextual issues associated with the creation and presence of extant emotions in order to manage those emotions that are in conflict with optimal organizational functioning. Interventions from this perspective might focus on understanding, and changing, the organization's culture. For example, an intervention might include the purchase of corporate art in an attempt to generate a particular mood or emotion in the organizational environment. Another culturally based approach would be to change key organizational symbols, such as the logo, letterhead or uniform, as a means to manage their attendant emotions. Yet another approach that accomplishes both the interpretive exploration of issues and initiation of action is to ask organizational members to journal about their feelings and to reflect on how they might change their actions based on their reflections.

Dialogic deconstructionists would argue from their 'power' perspective that emotions need to be surfaced in order to break down the barriers of power and create an atmosphere conducive to the dialogue that facilitates change. A practitioner using this perspective might organize an "action research" (Yorks, O'Neil, & Marsick, 1999) experience for the organization he or she was consulting to. One goal of this approach is to help surface the unspoken concerns in an organization and use these as part of the engine that drives change. Because dialogue is so crucial to this approach, another intervention might be to initiate "Town Hall" meetings to encourage interaction between members of differential power positions. Weisbord's Future Search Conferences (Weisbord, 1992) are one example of a specific technology designed to help all stakeholders have as voice in the direction of organizational change. Another approach from the power perspective might be to remove or re-create the symbols of power in the organizational culture that lead to emotional reactions. For example, assigned parking might be reallocated or corporate dining room privileges might be extended to all employees.

Finally, structural determinists would seek to alter the interrelationships of organizational structures or 'clubs' from which emotions emerge in order to create new rituals and rule sets for organizational members. Changing the arrangement of offices to promote more informal contact between members of two groups who are having trouble resolving conflict is an example of one such structural intervention. More formally, an over-involved manager might be coached to let subordinates settle differences themselves, or she might be encouraged to change reporting relationships to decrease triangling. Another typical, but more abstract, structural change might include changing the organizational reporting structure (e.g., from a matrix structure to a networked structure) in order to alter the nature of the interrelationships between organizational members.

At a more fundamental level, the context of the organization has taken a central role of importance in adult life. Hochschild (1997) argues that the organization has, for many, become the surrogate family; the relationships we maintain with organizational colleagues have assumed more importance in our lives than ever before. As family therapists point out, "Emotion is so central in this context [of personal relationships] that if there is no emotional response there is no relationship" (Johnson, 1998, p. 3). Even if our connections to organizations are not as extreme as Hochschild (1997) contends, emotions are still crucial to organizations. Gergen (1994) holds that "Emotions do not 'have an impact on' social life; they constitute social life" (p. 222). Professionals who work with human resources must become more adept at identifying, understanding, and using emotions in the best interests of *both* the individual and the organization.

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Utilization of Corporate University Training Program Evaluation

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This study aimed to determine how training program evaluation results are being utilized in corporate universities. In addition, this study also attempted to identify influential factors that affect evaluation data utilization in these entities. The majority of the purposes identified in this study were instrumental in nature. In addition, several examples of both conceptual and symbolic use were also cited by participants. Seven major factors were found to impact the use of evaluation results in the four corporate universities.

Keywords: Evaluation Use, Corporate University, Training Program Evaluation

Throughout the United States, businesses are spending increasing amounts of money each year on the training and development of their employees. The Bureau of Labor Statistics estimates that in 1997, businesses spent 58 billion dollars on training. Training Magazine's "Industry Report" states that, in 1997, employees in United States businesses received 751 million hours of training (Industry Report, 1997). It is clear that organizations are recognizing the importance of training their employees in order to help their businesses operate as productively and profitably as possible.

Many organizations are going one step further in the training and development of their human resources and are establishing what is known as a "corporate university." A corporate university is essentially a separate entity in a company that is responsible for the development and implementation of training programs for the members of the organization (Meister, 1994). It can be assumed that these organizations that have made an investment to develop a corporate university have made training a top priority.

With the increase of time, money, and other resources that are being invested in training by United States companies, the need for comprehensive evaluation techniques that measure the effectiveness of these training efforts is becoming more important than ever before. The training and development literature continually stresses the importance of evaluating training. However, among the companies that do use some form of evaluation technique, only a small percentage actually understand the importance and procedure of not only conducting the evaluation, but then utilizing the evaluation results correctly (Robinson & Robinson, 1989; Carnevale & Schulz, 1990; Dixon, 1990; Phillips, 1991).

The literature surrounding training evaluation examines the importance of conducting sound evaluations and suggests numerous reasons about why it is important to evaluate training programs. Moreover, within this literature, the issue of utilizing the evaluation results is regularly discussed. Evaluation can be used for a number of purposes. However, using evaluation for the improvement of training programs (formative evaluation) and for accountability, justification, and program continuation purposes (summative evaluation) are the most common reasons referred to throughout the training literature (Worthen, Sanders, & Fitzpatrick, 1997).

For evaluation to actually serve either a formative or summative purpose, the results of the evaluation must be utilized. Although there are a number of components involved in the evaluation of training programs, the utilization of evaluation results is continually noted throughout the literature as being the most important evaluation component and the most often overlooked (Wentling, 1980; Piskurich, 1997; Robinson & Robinson, 1989).

Training departments most often utilize the results of evaluations to aid in meeting training program, employee, and management demands (Carnevale & Schulz, 1990). They use evaluation results in a variety of ways to assist in improving their training programs. Training departments use the results to demonstrate a program's worth or value to the organization. Training managers and employees use evaluation results to help establish whether the employees have learned the necessary knowledge, skills, and attitudes to perform their specific jobs. Upper-level management want to know how the training department and its programs are affecting the company's bottom line. Training departments can use the results of evaluations to justify training expenditures with regard to return on investment, return on sales, and customer satisfaction (Carnevale & Schulz, 1990).

Since the mid 1970's, the majority of studies that examined the utilization of evaluation results looked primarily at the different factors that influenced the use. In addition, many of these studies also focused their attention on defining what was meant by "evaluation use."

From the research conducted throughout the 1970's, it was determined that evaluation use could be either

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instrumental, conceptual, or symbolic (persuasive) in nature. Rich (1977) explained instrumental use occurred when evaluation results were used in a direct and immediate manner, most often for program improvement.

Conceptual use occurred when evaluation findings were utilized over time to influence thinking and future decision-making (as opposed to being used for an immediate and observable action). Symbolic or persuasive use referred to the utilization of evaluation results to help justify a program and serve as an accountability mechanism or to give individuals a political advantage against opponents (Leviton & Hughes, 1981).

In 1977, Patton, Grimes, Guthrie, Brennan, French, and Blyth conducted a study where they interviewed decision-makers and evaluators from twenty federal health projects. They focused their research on identifying factors that affected the use of evaluations in these projects and the extent to which the evaluation results were used.

In attempting to identify the key factors that influence evaluation results utilization, the researchers used a list of eleven common factors that had been determined by previous studies. They asked the participants to comment on the overall importance of each of the eleven factors. From the eleven factors, a total of two major factors emerged as being consistently relevant in helping to explain the utilization (or non-utilization) of evaluation results. These factors were identified as political factors and personal factors (Patton, et al., 1977).

From the twenty cases that were studied, the researchers found that in fifteen of them, the participants believed that politics played a major role in the utilization process. These political factors included: intra- and inter-agency rivalries (budgetary disputes with the Office of Management and Budget, the administration, and Congress); power struggles between Washington administrators and local program personnel; and internal debates about the purpose and/or accomplishments of programs (Patton, et al., 1977).

The personal factor(s) that emerged as being of significance in the utilization process were comprised of seven parts which included: leadership, interest, enthusiasm, determination, commitment, aggressiveness, and caring (Patton, et al., 1977). The researchers indicated that "evaluations have an impact when personal factors are present, and an absence of impact when not present" (Patton, et al., 1977).

Patton, et al. (1977) stressed throughout their study that the evaluator's dedication to the evaluation project had great influence over whether the results would be utilized. In addition, Patton also found that the more the evaluative information was directed at advocates of the program being evaluated, the greater the likelihood that they would use the results (Leviton & Hughes, 1981; Patton, et al., 1977).

In 1997, Preskill and Caracelli (1997) conducted survey research focused on evaluation use that analyzed perceptions and experiences about use. They used an informed sample population that consisted of members of the Evaluation Use Topical Interest Group. The researchers found that the strategies identified most by the participants as helping to promote use included working collaboratively with clients and stakeholders throughout the evaluation, effectively communicating the results of an evaluation to the proper audience(s), and establishing an effective method for drawing conclusions based on the results which would ultimately lead to making decisions for action based on this communicated information (Preskill & Caracelli, 1997).

Problem Statement

This study examined the utilization of training program evaluation results in corporate universities. Specifically, this study attempted to determine the factors that are related to the use of evaluation results in corporate universities.

Research Questions

This study was guided by the following four research questions:

1. What individual(s) within the corporate university and/or organization use the results of the evaluations?
2. What are the main purposes for which the results of corporate university training program evaluations are used?
3. What components of the evaluation report are most utilized?
4. Based on Cousins and Leithwood's 1986 framework, what are the factors that influence the use of evaluation results in corporate university training programs?

A. What is the applicability of the Cousins and Leithwood 1986 meta-analytic conceptual framework to corporate university training programs?

B. Do the factors identified in this framework as influencing evaluation utilization in a number of contexts (i.e., education, mental health, social services) have any relationship with the factors that are found to influence use in a corporate university training setting?

C. Which of the higher order categories (and subsequent factors) identified in Cousins and Leithwood's 1986 framework have the most impact on decision-makers and the use of evaluation results?

Theoretical Framework

Throughout the evaluation utilization literature, it is evident that the majority of historical research has used frameworks such as the one developed by Alkin, et al. (1983) to help in identifying factors that influence the use of evaluation results. Most of these early frameworks simply described the factors that influenced the use of results. Until 1986, no comprehensive study succeeded in going beyond these existing frameworks to try and create, through a meta-analysis of frameworks, a model that built on (and synthesized) the most important components of each of these earlier studies.

In 1986, Cousins and Leithwood conducted an in-depth investigation into all of the empirical research on the utilization of evaluation results (65 total studies) that had taken place since 1971. Cousins and Leithwood (1986) were the first researchers to actually construct a meta-analytic model, or conceptual framework, that looked beyond just describing influencing factors. Their framework included the most important/significant factors from previous models and could be used as described by Shulha and Cousins in 1997, "to determine the weight of the factors in their ability to predict use" (Shulha & Cousins, 1997).

Cousins and Leithwood's investigation examined 65 studies that were focused on the use of evaluation results. From these studies, the researchers were able to construct a conceptual framework that is made up of 12 factors that influence use. They grouped six factors under a "higher order category" called *evaluation implementation* (relevance, timeliness), and the remaining six factors under a second "higher order category" called *decision/policy setting* (political climate, competing information) (Cousins & Leithwood, 1986). The dependent variable in their study, and framework, was evaluation utilization, while the independent variables were the factors that influenced the ways the results were used by key decision-makers (Cousins & Leithwood, 1986).

After reviewing the 65 empirical studies, Cousins and Leithwood determined that 12 major factors were common throughout the studies and could be grouped under the higher order categories listed above. The factors associated with the category of *evaluation implementation* included: evaluation quality, credibility, relevance, communication quality, findings, and timeliness. The remaining factors grouped under the category of *decision/policy setting* were: information needs, decision characteristics, political climate, competing information, personal characteristics, and commitment and/or receptiveness to evaluation (Cousins & Leithwood, 1986).

The framework for conceptualizing evaluation utilization that was designed by Cousins and Leithwood in 1986 served as the basis for this study. This framework was chosen for this study because of its overall comprehensiveness and applicability for examining factors and other aspects of evaluation utilization. This is due to Cousins and Leithwood's detailed, in-depth study of previous models to create, through a meta-analysis of frameworks, a model that built on (and synthesized) the most important components identified in earlier studies.

This investigation tested the Cousins and Leithwood (1986) framework in a corporate training setting. This framework was based on a meta-analysis of frameworks that were developed in a number of different settings, and not just a corporate training setting. By applying this model to the corporate setting, a comprehensive look into the use of evaluation results within corporate university training programs and departments resulted.

Research Design

This study was conducted primarily through the use of qualitative multi-site field research. Specifically, this research utilized a case study approach, consisting of on-site interviews with key personnel and in-depth document reviews of all applicable training program evaluation information at four major U.S. corporate universities. This method was chosen because it enables the investigator to examine the general context in which evaluation utilization occurs and provides the best access to corporate universities to study the factors that are affecting this use. The combination of on-site, semi-structured interviews with individuals at each location and document review of information relevant to each corporate university's training program evaluation, enabled the investigator to utilize multiple data collection methods and data sources which added to the overall reliability and validity of the research. In addition, by conducting case study research, the investigator was able to serve as the common "interpreter" of all participant responses and was able to assist each participant with any clarification he/she required in regard to the interview questions. The investigator had the opportunity to discuss, in detail, all responses with each participant, which resulted in a collection of the most in-depth and complete data about how evaluation results are used in corporate universities and the factors that affect this use. Qualitative field research enabled the investigator to gain a broad, complete, and comprehensive understanding of the different facets that affect the use of training program evaluations.

Limitations

The corporate universities used as the population for this study are not representative of all training departments in all companies. While the companies who have established corporate universities most likely view the training and development of their employees as being highly important, the data collected from them may not be representative of other companies who have not put similar resources into developing a corporate university. Specifically, this study focused on four corporate universities identified with the assistance of a jury of experts on corporate universities.

Results and Findings

Cross-site Analysis. The cross-site analysis examines the parallels and dissimilarities in the data collected from the four corporate universities in this study: Tennessee Valley Authority University (TVAU), Illinova University (IU), Bell Atlantic Training, Education, and Development (BA), and Patent and Trademark Office University (PTOU). Specifically, this section discusses the relationships evident in the findings from each site with regard to the following: users of evaluation information; components of evaluation reports used; uses of evaluation data (purposes); and influential factors associated with evaluation utilization. The researcher conducted a total of twenty-nine interviews in this study with individuals who serve in a variety of capacities including evaluators, instructional designers, deans or directors of corporate universities, instructors/trainers, advisors, and managers from throughout the organizations. In addition to these in-depth interviews, the researcher spoke with a number of other corporate university staff members (ranging from administrative staff to statisticians to marketing personnel) from each site who were able to contribute information used to achieve this study's objectives.

Although each of the four sites represent different industries and therefore vary slightly in their training programs' content, their overall curriculums were similar. Each of the corporate universities' training curriculums were developed around the following four major areas: New Employee Orientation/Organization Orientation; New Employee Technical Skills Training/Job Skills Training; Incumbent Soft Skills Training (i.e., customer service, communication skills, problem solving, planning, project management); and, Incumbent Technical Skills Training/Job Skills Training. Every site had the overall goal to train new employees; and, to keep incumbent workers updated and current in the knowledge, skills, and various competencies needed to do their jobs. When asked about different methods of evaluation and types of utilization for specific training courses within each of their curriculums, all sites indicated that they do not differentiate between types of training in terms of certain courses being evaluated and others that are not. Moreover, every site explained that evaluation is undertaken and results used for the same purposes for all of their curriculums' training programs regardless of the type or category of training.

Users of Evaluation Results. Throughout each of the four corporate universities, the major users of training program evaluation results tended to be similar and fall into the following six categories: evaluation staff; instructional design and development staff; instructors/trainers; the dean or director of the corporate university; upper-level management, typically from the corporate universities' governing boards; and, student advisors/counselors. The purposes in which data were used by each of these groups was similar among the four sites; however, it was determined that the ways evaluation results were used differed by position of user. For example, instructional design staff tend to use evaluation information for internal training activity course and instructor modifications and rarely utilized the data for justification purposes as deans tended to do in presentations to boards of directors. Although data were used by different individuals for various purposes, a strong sense of camaraderie among the users within the corporate universities existed at all of the sites.

The one difference that existed among the sites with respect to the users of data, had to do with managers from departments throughout the organization receiving and utilizing evaluation information. Tennessee Valley Authority University (TVAU), Bell Atlantic Training, Education, and Development, and Illinova University were the only sites that distributed data to outside department managers. While TVAU and Bell Atlantic Training, Education, and Development indicated a considerable amount of use by external department managers, Illinova University noted that although all managers receive data about their employees' progress in training, only a small percentage actually use the information for specific purposes. Due to union pressure, the Patent and Trademark Office University has implemented policy that does not allow for trainee evaluation results to be distributed to company department managers.

None of the sites indicated trainees as major users of evaluation data. In fact, with the exception of TVAU, employees do not directly receive evaluation results from their training programs. PTOU relies on student advisors while the remaining three sites utilize department managers to convey evaluation information to trainees and to implement solutions to problems identified in the data. Each site felt that its method was a reliable way to communicate data to students for self-improvement and other related purposes.

Components of Evaluation Reports Utilized. All of the sites in this study consistently used similar reporting techniques to communicate evaluation data to users throughout their organizations. The components of the evaluation reports were dependent, however, on the type of information that was collected as well as the users' learning or processing styles. For example, student reaction and test scores tended to be reported using descriptive statistics, charts, and graphs, while return on investment information was typically conveyed through qualitative, written formats. Furthermore, the evaluation staff at each site indicated that the reporting method(s) used was highly dependent on the end-user and his/her format preference for receiving data as indicated from past experience. When the evaluation teams were unaware of the users' preferred format, they incorporated multiple types of communication techniques in the evaluation reports to help increase understanding and utilization of the data.

Across all of the sites, a common trend was apparent in regard to certain groups utilizing specific parts of the evaluation reports. The evaluation staff, instructional designers, trainers, and advisors tended to use the statistical portions of reports that provided a detailed breakdown of each item on the assessments and used means, ranges, standard deviations, and other descriptive statistics to illustrate the findings from the evaluations. Because these groups of users are the "core" staff directly responsible for all aspects of the training programs including the implementation of appropriate solutions to remedy problems that occur, more in-depth data are needed to identify specific problems that exist within courses and among the student population.

The deans or directors of the corporate universities, governing board members, upper-level management, and department managers primarily used components of quarterly and/or semester evaluation reports that contained a wider range of reporting techniques (i.e., graphs, charts, executive summaries, etc.). The evaluation teams used multiple reporting methods because these reports were being distributed to a larger user group with varying types of learning and processing styles.

Uses of Evaluation Data. This study revealed a number of different ways training program evaluation results are utilized by corporate universities. Each of the four sites provided an average of ten examples regarding how data are being used at their organizations. The majority of the purposes of use identified in this study were instrumental in nature, however, both conceptual as well as symbolic types of utilization were present within each of the corporate universities. Table 1 contains a comprehensive summarization of the different ways training program evaluation data are being put to use at the four corporate universities, the nature of use (i.e., instrumental, conceptual, and/or symbolic), and the number and name of sites that indicated each purpose as being prevalent within their organization. The list is comprised of a total of nine different purposes of use that were indicated as occurring by at least two of the corporate universities.

Table 1. How Evaluation Results are Utilized Among the Four Sites

Purpose of use-results used to:	Nature of use	Occurrence/ Total sites*
Modify aspects of course/curriculum	Instrumental	4/TVAU,IU,BA,PTOU
Instructor development/replacement	Instrumental	4/TVAU,IU,BA,PTOU
Justification of training programs	Symbolic	4/TVAU,IU,BA,PTOU
Influence course continuation decisions	Instrml./Conceptual	4/TVAU,IU,BA,PTOU
Identify when advanced course is needed	Instrml./Conceptual	3/TVAU,IU,BA
Determine employee job placement	Instrumental	2/PTOU,BA
Market programs	Instrumental	2/IU,BA
Identify barriers w/in the org. that impact the transfer of training	Instrumental	2/IU,BA
Continue/discontinue contracts with external vendors	Instrumental	2/BA,PTOU

*TVAU – Tennessee Valley Authority University
IU – Illinova University
BA – Bell Atlantic Training, Education, & Development
PTOU – Patent & Trademark Office University

Influential Factors Associated with Evaluation Utilization. The meta-analytic conceptual framework developed by Cousins and Leithwood in 1986 was used to determine influential factors that affect the utilization of training program evaluation data at corporate universities. Through the meta-analysis, Cousins and Leithwood determined the importance (or influence) of each factor and ranked them accordingly one through twelve.

A comprehensive list of factors identified at all of the sites is summarized according to rank of importance in Table 2. Seven of the factors from the Cousins and Leithwood framework were noted as influencing evaluation utilization throughout all four of the corporate universities. Their overall rank of importance was determined by taking each factor's rank from all of the sites and computing an overall average for that factor. For example, *communication quality* ranked as the most important factor at three sites and as second most important at the fourth corporate university. Based on these rankings, this factor's overall average was 1.25, which categorized it across the four sites as being the number one factor affecting use.

Table 2. Factors Identified as Being Influential to Evaluation Data Utilization

Factor	Overall rank of importance
Communication Quality	1
Timeliness	2
Commitment and/or Receptiveness to Evaluation	3
Evaluation Quality	4
Credibility	5
Relevance	6
Findings	7

Through the analysis of each site's findings in terms of the following: users of evaluation information; components of evaluation reports used; uses of evaluation data; and influential factors associated with evaluation utilization, it has been determined that many similarities and common trends exist. The main users of evaluation data at each of the sites typically consisted of evaluation staff, instructional design and development staff, instructors/trainers, the dean or director of the corporate university, individuals from upper-level management, and, student advisors/counselors.

The components or parts of the evaluation reports that were utilized was dependent upon the user's personal learning style and format preference. Evaluation results were used across all four sites in this study, for nine major purposes summarized in Table 1. The majority of use occurred in an instrumental sense, however, some cases of conceptual and symbolic utilization were also noted by study participants. Moreover, evaluation data tended to be most often utilized in the following situations: when "red-flags" occur alerting staff of potential and/or existing problems in training courses; during curriculum revision and/or design phases; during presentations to upper-level management; immediately following a course's conclusion in order to provide necessary feedback about that course; and, during corporate university budget revisions and modifications, as well as organization-wide budget cuts in order to illustrate the corporate university's impact on the organization.

The factors that were found to influence the utilization of evaluation data listed in Table 2 were very consistent throughout all of the sites. While the majority of the factors affected use in a positive sense, some were noted as having a negative impact on utilization. In order to increase evaluation use in a corporate university as well as an entire organization, these factors need to be taken into account throughout the entire evaluation process to ensure that those that are positively influential are promoted, while those that inhibit use are avoided.

Conclusions and Recommendations

Users of Evaluation Information. This investigator concludes that within the organizations and corporate universities examined in this study, a wide range of users exists. The assortment of users, in terms of their varied capacities and understanding and devotion toward evaluation use, has helped to communicate the importance of evaluation utilization to a large percentage of employees within these four organizations. As a result, in all of the sites, not only are training programs being evaluated using systematic techniques and methods, but the overall utilization of evaluation data for a variety of purposes has increased.

Components of Evaluation Report Utilized. Throughout all four sites, because in many instances users' preferred reporting formats were unknown, evaluation staff integrated multiple reporting techniques into their reports to ensure that all users were able to understand and utilize the assessment information. This investigator has concluded that in order to increase utilization of evaluation information in corporate universities and throughout their organizations, both quantitative and qualitative assessment data should be reported in a variety of formats including: executive summaries; a section of the report that uses descriptive statistics, charts, and graphs; and qualitative written descriptions of the findings that supplement the quantitative statistical breakdown of the data, in order to appeal to the different processing styles and preferred formats of all users.

Uses of Evaluation Data. Given this study's findings, it can be concluded that evaluation results are being used at the four sites for a variety of purposes ranging from internal corporate university training program improvements to the use of data as a justification and accountability mechanism for the corporate university. While the nine purposes found in this study represent those that were most prevalent, a number of other less predominant purposes were also found at individual sites and tended to be unique to the specific corporate university and organization.

Influential Factors Associated with Evaluation Utilization. In regard to the applicability of Cousins and Leithwood's 1986 meta-analytic framework to the four sites, seven of the twelve factors from their framework were found to impact evaluation utilization in the corporate universities. Based on these findings, this investigator concludes that among the twelve factors identified by Cousins and Leithwood (1986), seven of them do not differentiate between the different contexts where program evaluation is occurring, in terms of affecting the use of assessment results.

Six of the seven factors identified in this study that were found to influence training program evaluation use, are categorized under Cousins and Leithwood's (1986) higher-order heading, *evaluation implementation*. The seventh factor, commitment and/or receptiveness to evaluation, falls under the second higher-order category in their model called *decision/policy setting*. Based on these results, this investigator has concluded that factors related to aspects of the actual evaluation, evaluator, and overall assessment process, as opposed to factors associated with policy setting characteristics, are more applicable and have greater influence on evaluation utilization in a corporate university training program setting. This may be due to the fact that more decisions regarding policy occur in the federal, public, and private contexts (social services, education, and healthcare) analyzed by Cousins and Leithwood (1986), than in the organizations containing corporate universities that were examined in this study. While factors that are related to aspects of the evaluation process are clearly most influential in this study, because setting policy did not appear as a top priority and purpose of the users of data in the four sites, it is not surprising that factors associated with Cousins and Leithwood's (1986) higher-order category of *decision/policy setting*, were not found to be major factors affecting utilization.

Evaluators

Evaluators in corporate universities need to consider new potential users of evaluation information from both within the corporate university, as well as from the entire organization. These individuals may include other evaluators, trainers, instructional designers, student advisors, deans, and members of upper-level management. It is recommended that evaluators gain an understanding of the purposes for which the user intends to utilize the evaluation results and design processes and assessment tools/instruments to collect information that meets the user's needs.

In order to increase evaluation utilization in their organizations, evaluators should implement a procedure that facilitates communication with users throughout the entire evaluation process (i.e., design, implementation, analysis, and reporting) in order to understand their needs, timeline, and preferred method of reporting. The evaluator should take proper action to match the reporting timeline to the needs of the user. By building a relationship with the various users of evaluation information and nurturing ongoing communication with them throughout the evaluation process, the evaluator's credibility may increase, the users' commitment and/or receptiveness may rise, and the data that emerges from the evaluations may be more relevant to the users' needs.

When reporting evaluation results to internal corporate university staff, evaluators should include in-depth and detailed statistical breakdowns of the data according to evaluation item, and also supplemental, written explanations that describe the information. When reporting to the dean of a corporate university and to upper-level management, it is recommended that evaluators include statistical breakdowns by course, summary charts, graphs, and executive summaries.

Managers in Corporate Universities

Managers from within corporate universities should use this study's findings to identify potential ways that they can utilize evaluation data in their roles. Specifically, managers should use evaluation data to demonstrate to upper-level management the corporate university's status/progress. Moreover, it is recommended that managers use evaluation information to assist in decisions regarding employee job placement. Managers should also use assessment data to market training courses and to increase visibility of the corporate university.

Managers should request in-depth and detailed statistical breakdowns of the data according to evaluation item from evaluators. In addition, it is recommended that they ask evaluators for supplemental, written explanations that describe the evaluation findings. Deans of corporate universities should establish systems that encourage use among corporate university staff.

Upper-Level Management. During the initiation, development, and refinement of an evaluation department within a corporate university, the findings from this study should be taken into account to ensure that training program evaluation data are utilized to their fullest capacity. Specifically, it is recommended that managers who are interested in developing a corporate university establish an internal evaluation department. This may help to boost evaluator credibility throughout the organization, increase user commitment and understanding of evaluation, and promote ongoing communication between the evaluator and the user(s) through the entire evaluation process. Management should employ a knowledgeable and credible evaluation staff that is well-versed in psychometrics and is able to communicate evaluation results through a variety of formats including statistical control charts, graphs, and executive summaries. The evaluation staff should have both quantitative and qualitative analysis and reporting skills. Furthermore, it is recommended that the corporate university staff be trained in how to interpret and use the evaluative information.

Researchers

With the growing number of corporate universities in organizations throughout the United States (Meister, 1999), additional research that focuses on evaluation use in these entities should be conducted. As new corporate universities emerge in a variety of industries, additional users of data, purposes of use, and factors that impact utilization may arise. These need to be explored in future studies.

The factors found to impact use in a corporate university setting should be tested for their applicability in corporate training programs that exist outside of the corporate university context. The similarities in terms of curriculums that may exist between corporate training programs and those found in corporate universities would provide a basis upon which to study factors affecting evaluation use. By determining influential factors that impact data utilization in corporate training programs, it may encourage evaluation use to increase within this context.

Further research focused on comparing evaluation use in a variety of contexts should be conducted in order to determine common purposes of utilization and factors influencing use that are consistent across settings where program evaluation is occurring. The results of such a comparative analysis would add to the literature on evaluation use.

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Organizational Readiness for Learning and Evaluation

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Organizations that wish to engage in evaluation as part of their approach to organizational learning should consider determining how ready the organization is for learning from evaluation processes and findings. This paper reports the outcomes of implementing a diagnostic instrument with eight U.S. organizations. The findings indicate that the instrument is able to identify areas of strength on which to build evaluation efforts, and areas in need of development for creating and sustaining learning from evaluation work.

Keywords: Evaluation, Organizational Learning, Survey Research

Within the last few years, organizations have struggled to find ways to adapt, survive, and even thrive in today's dynamic, unpredictable, and constantly changing marketplace and society. One popular approach to addressing organizational change and development has been to implement systems and processes that support organizational learning (see for example, Argyris & Schon, 1978, 1996; DiBella & Nevis, 1997; Dixon, 1994; Marquardt, 1996; Senge, 1990; Watkins & Marsick, 1993). The goal of implementing such systems and processes has been to become a "learning organization." While many definitions of organizational learning abound in the literature, Torres, Preskill and Piontek (1996) define it as, "a continuous process of organizational growth and improvement that: (a) is integrated with work activities, (b) invokes the alignment of values, attitudes, and perceptions among organizational members, and (c) uses information or feedback about both processes and outcomes to make changes" (p. 2). In this sense, organizational learning represents the organization's commitment to using all of its members' capabilities. Ultimately, organizational learning is about creating continuous processes and mechanisms for learning about how to do things better.

Another effort that is gaining attention within the learning and performance arena is evaluation (Bassi, Benson & Cheney, 1996; Brown & Seidner, 1998; Industry Report, 1996; Raelin, 2000; Sadler-Smith, Down & Field, 1999). As organizations seek to provide timely, relevant, cost efficient and effective programs, services, and products, they are asking for evaluative information to guide their decision-making practices. In spite of a desire to conduct more evaluations, however, employees are often uncertain about how to conduct rigorous, useful evaluations or how to find the resources and time to do them well. Few employees have any academic background in evaluation, or much practical experience conducting systematic evaluations. Further complicating the situation is the fact that even those who understand the value of evaluation worry that their organizations are not "ready" or really willing to evaluate; that the organization's culture and leadership don't appear to support evaluation, and that there are few processes, systems or mechanisms for conducting evaluation. Nevertheless, there remains a growing need and concern in how to effectively evaluate learning and performance efforts.

Given this increasing interest in conducting evaluations and becoming a learning organization, some means of diagnosing an organization's readiness to learn from evaluative inquiry is needed. It would clearly be a waste of time and resources to engage in evaluation work if an organization is not ready or interested in using the evaluation's results or learning from evaluation practice. Therefore, the use of a diagnostic instrument can yield information helpful for preparing and guiding the organization in their efforts to evaluate various learning and performance programs, processes, products, systems, and services.

Evaluation and Learning

Preskill and Torres (1999) envision evaluative inquiry as:

> An ongoing process for investigating and understanding critical organizational issues. It is an

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> approach that is fully integrated with an organization's work practices, and as such engenders (a)organization members' interest and ability in exploring critical issues using evaluation logic, (b) organization members' involvement in evaluative processes, and (c) the personal and professional growth of individuals within the organization. (p. 1-2).

They propose that evaluative inquiry is most successful when four learning processes are used throughout an evaluation. These include: (1) Dialogue, (2) Reflection, (3) Asking Questions, and (4) Identifying and Clarifying Values, Beliefs, Assumptions, and Knowledge. When an evaluation is facilitated using these processes, greater insights and understandings about the evaluand (that which is being evaluated) are developed. These learning processes also support a collaborative and participatory approach to evaluation throughout the (1) focusing the evaluation, (2) carrying out the evaluation, and (3) applying learning phases.

According to Preskill and Torres (1999), the organization's infrastructure also directly affects the effectiveness of any evaluative inquiry effort. They identify four elements of this infrastructure: (1) Culture, (2) Leadership, (3) Communication, and (4) Systems and Structures. These elements form the foundation on which evaluative inquiry efforts can be undertaken and sustained. That is, these elements will facilitate or inhibit individual, team, and/or organizational learning from evaluative inquiry to varying degrees, depending on how they function within the organization.

Administering a diagnostic instrument such as the one discussed in this paper, prior to conducting an evaluation, can help organization members understand the degree to which the evaluation will be successful by considering the extent to which different organizational elements support or inhibit learning from evaluation. For example, an organization may learn that support for evaluation will be limited, or that certain elements of its infrastructure do not support inquiry and learning in general. This organization would then know that attention to a wider array of its practices and systems would be needed for evaluative inquiry to be maximally successful. And when an external evaluator is involved, sharing this information will enable her to know beforehand, what challenges to expect with regard to the organization's ability to learn from the evaluation, or use its results. Being aware of this enables the evaluator to address these obstacles to use so that the evaluation can be as effective as possible.

Research Purpose and Guiding Questions

The purpose of the research was to further establish the validity of the Readiness for Organizational Learning and Evaluation (ROLE) instrument and to understand the status of evaluation and learning readiness in eight pilot organizations. Specifically, this study sought to answer the following questions:

1. What are the strongest and weakest dimensions across the eight pilot organizations (Culture, Leadership, Communication of Information, Systems and Structures, Teams, and Evaluation)?
2. Do respondents' perceptions differ based on their position in, and longevity with, the organization?
3. How do the dimensions' mean scores vary across the eight organizations?
4. What challenges might these organizations face when engaging in evaluation work?

Methods

Data were collected using the newly designed Readiness for Organizational Learning and Evaluation (ROLE) instrument. The instrument was developed based on a) a review of the organizational learning and program evaluation literatures, b) a review of existing organizational learning and readiness for evaluation instruments, and c) interviews conducted with several organizations that are attempting to become "learning organizations." The items were classified into dimensions based on the framework described in Evaluative Inquiry for Learning in Organizations (Preskill & Torres, 1999). These dimensions include: (a) Culture - 26 items, (b) Leadership - 12 items, (c) Communication of Information - 8 items, (d) Systems and Structures - 18 items, (e) Teams - 11 items, and (f) Evaluation - 9 items. With three additional demographic items, the total number of items on the instrument is 87.

Sample

To establish the instrument's construct validity, eight organizations were invited to administer the instrument with their employees. Each of the organizations had already begun making efforts to become a learning organization and saw the instrument as a means to understand how well they were doing, and their members' interest in integrating evaluation into their work practices.

Because we hope the instrument will be useful in a wide range of organizations, we sought to involve a diverse group of organizations in the study. The participating organizations included a: hospital, non-profit community organization, elementary school, car dealership, Fortune 50 technology company, newly established community college, department within a university's medical school, and county administrative office. These organizations were located in the Northwest, Southwest, Northeast, and Rocky Mountain regions of the U.S. Each organization was invited to participate at the organization or department/unit level. In five of the organizations, respondents rated the items thinking about their organization overall, while three responded in terms of their department or unit. A total of 232 useable instruments were returned from the eight organizations. For their participation, each organization received a 1) summary report that included descriptive statistics for each item, 2) aggregate scores for each dimension, 3) a narrative summary of the results, and 4) an offer for two hours of free consultation regarding their organization's results.

While details on establishing the instrument's construct validity can be found elsewhere (Preskill, Torres, & Martinez-Papponi, 1999), the instrument was found to be internally consistent (Cronbach's alpha .97 across the 78 Likert scale items, and a range of .83 to .94 across the six dimensions). Exploratory factor analyses suggested the following modifications to the original instrument: (1) elimination of four items with low communality, (2) creation of three subscales within the culture dimension; (3) creation of three subscales within the systems and structures dimension; and (4) creation of two subscales within the communication dimension.

The findings reported in this paper reflect the 232 responses to the original instrument before final changes were made based on the factor analyses. In spite of reorganizing some of the items and the elimination of four items, none of the items were reworded; thus, we are confident the results reported here are valid and worthy of discussion.

Data Analysis

For each question, participants were asked to indicate on 5-point Likert scale (ranging from 1 = Strongly Disagree to 5 = Strongly Agree) the extent to which they agreed with each statement. Data were analyzed using the SPSS (version 9.0) statistical package. Descriptive statistics (means and standard deviations) were calculated for each instrument item, as well as for each of the six dimensions (e.g., Culture, Leadership). When a design consists of more than two dependent variables, it is necessary to determine which ones differ significantly from each other. Therefore, a MANOVA using the mean scores for each dimension as the dependent variable was conducted. Since missing data constituted less than 1% of the responses, the series means for each dimension were used for the missing data in that dimension.

The general linear repeated-measures model provides analysis of variance when the same measurement is made several times on each case. In this situation, we treated the dimension as the repeated measure (within subjects). We also specified a between-subjects factor (organization) and therefore, the population was divided into groups. Using the repeated measures model, we were able to study the effects of both the between-subjects factors and the within-subjects factors. Further, we were able to investigate interactions between factors as well as the effects of individual factors. Series means for each dimension were again used for the analysis for missing data in that dimension.

Findings

The findings from this study are reported for each research question. Before discussing the results, however, it is important to remind the reader that the participating pilot organizations agreed to become involved because they were interested in enhancing their organization's evaluation and learning capabilities. In some cases, they had already implemented several organizational learning processes and activities. Therefore, most of these organizations were predisposed to the basic concepts of team and organizational learning, which might have skewed the overall results in a more positive direction. We do not intend to generalize these results to other organizations. Rather, we believe the results provide additional insights into the instrument's reliability and validity, and some trends in these particular organizations.

1. What are the strongest/weakest dimensions across the eight pilot organizations?

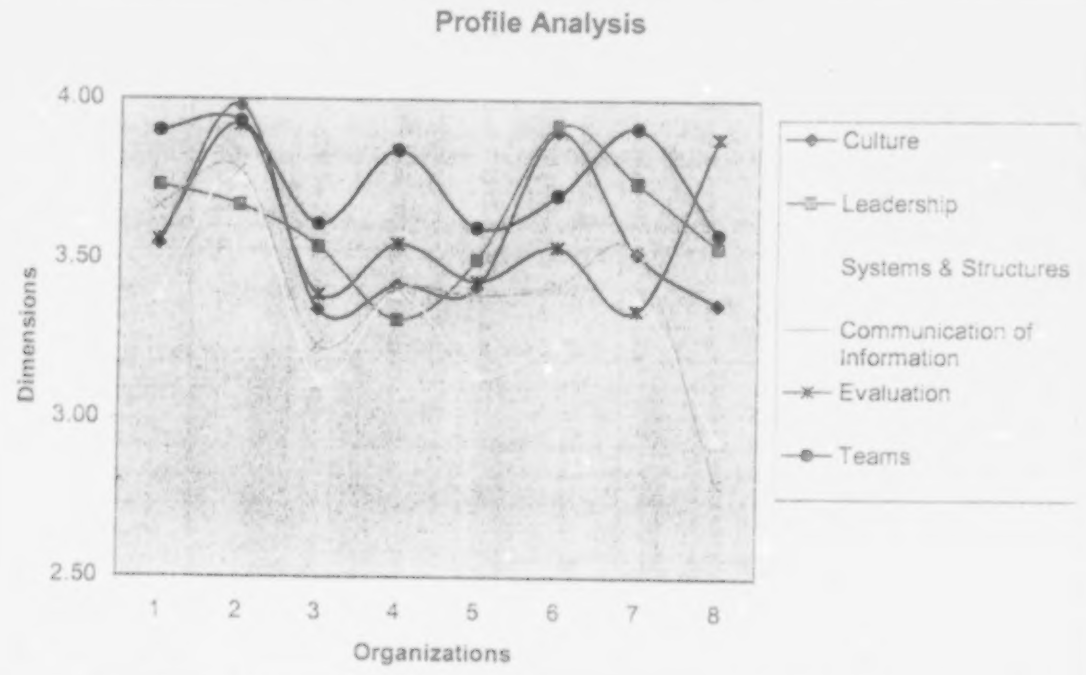
As can be seen in Table 1, the highest rated dimension across the eight organizations (N=232) is *Teams*, while the lowest rated is *Systems and Structures*. Only those respondents who said they work in teams (n=193/84%) completed the questions in the *Teams* dimension. These items focused on how well team members: (a) deal with conflict, (b) are open and honest with one another, (c) facilitate meetings, (d) accomplish their work, and (e) are encouraged to share their learning with others. Interestingly, of these 193 individuals, only 101 or 44% said they have received training on how to work as a team member. Nevertheless, it appears that overall, respondents believe that their teams are working and are an effective means for completing various work-related tasks.

Table 1. Means and Standard Deviations for Each of the Six Dimensions

Dimension	Mean	Standard Deviation
Teams (n = 185)	3.7561	.7222
Leadership (n = 232)	3.6219	.7474
Culture (n = 232)	3.5326	.6269
Evaluation (n = 232)	3.5268	.5673
Communication of Information (n = 232)	3.4339	.6490
Systems & Structures (n = 232)	3.2780	.5683

The *Systems and Structures* dimension, rated lowest by respondents across the eight organizations included items that focused on (a) the accessibility and openness of the work environment, (b) the organizations' rewards and recognition systems and practices, and (c) the relationship of employees' work to the organizations' goals. A profile analysis for the eight organizations as shown in Figure 1 is another way to view the highest and lowest dimensions for each of the organizations. As can be seen in this figure, the *Teams* dimension was consistently higher across organizations, just as the *Systems and Structures* dimension was consistently lower across the organizations.

Figure 1. Profile Analysis of Eight Participating Organizations



2. Do respondents' perceptions differ based on their position in, and longevity with, the organization? These analyses were conducted using the MANOVA tests and did not include responses to items in the *Teams* dimension. Since this was the only dimension that did not require responses from all participants, it was not included as a variable in the remaining analyses.

We used a repeated measures multivariate analyses of variance (MANOVA) to examine whether being in a supervisory or management position affected how respondents rated each item. Using a 5 (dimension) x 2 (position) design, we combined "First-line Supervisor, Middle Manager, and Senior Manager" into one group (n=44), and the rest of the respondents' into another group (n=164). We questioned whether those in supervisory roles would have a more positive view of how ready the organization was for learning and evaluation. The results of the MANOVA revealed a multivariate effect, Wilks' Lambda = .95, F (5, 202) = 2.18, $p < .057$. This finding shows that managers did rate the dimensions differently than those in non-managerial positions. When we examine the individual means and standard deviations (See Table 2), we see that the managers rated the dimensions higher (more positively) as we thought they might. In other words, they were more likely to agree that their organizations reflect a learning and evaluation environment.

Table 2. Means and Standard Deviations for Each Dimension Based on Position Within the Organization

Dimension	Manager (1) or Non-Manager (2)	Mean	Standard Deviation
Culture	1	3.5323	.5122
	2	3.5055	.6504
Leadership	1	3.7875	.5756
	2	3.5770	.7795
Systems & Structures	1	3.2521	.5059
	2	3.2455	.5772
Communication of Information	1	3.3636	.5686
	2	3.4350	.6821
Evaluation	1	3.6204	.5558
	2	3.4755	.5537

To determine if the length of one's time with the organization affects the overall dimension ratings, a 5 (dimension, excluding Teams) x 3 (longevity) MANOVA was performed. Participants were divided into three groups based on their time with the organization; less than a one-year (n=49), one to three years (n=76); and four years or more (n=87). Results of the MANOVA were not significant ($p = .23$), indicating that the dimension variables did not differ significantly between the three groups. Individual means and standard deviations for the dimensions are reported in Table 3.

Table 3. Means and Standard Deviations for Each Dimension Based on Longevity with the Organization

Dimension	Longevity 1= less than one year; 2= 1-3 years; 3 = 4 or more years.	Mean	Standard Deviation
Culture	1	3.6950	.5808
	2	3.4954	.6770
	3	3.4356	.5876
Leadership	1	3.8348	.7377
	2	3.6010	.7650
	3	3.5387	.7200
Systems & Structures	1	3.4142	.5653
	2	3.2066	.6088
	3	3.2014	.5188
Communication of Information	1	3.4808	.6680
	2	3.4462	.6873
	3	3.3649	.6395
Evaluation	1	3.5581	.6675
	2	3.5829	.5543
	3	3.4160	.4919

3. How do the dimensions' mean scores vary across the eight organizations?

A repeated-measures ANOVA (using deviation contrasts, which compares the mean of each level to the grand mean) test was preformed in order to examine if the dimensions (excluding *Teams*), differed between each other, and if the differences in dimensions differed across the organizations. The repeated-measures ANOVA confirmed that participants do vary across dimensions, Wilks' Lambda = .70, F (4, 221)= 23.61, $p < .000$. The analyses also showed that there were significant differences across the eight organizations as they rated the five dimensions, Wilks' Lambda = .63, F (28, 798) = 3.96, $p < .000$. These results further validate our earlier findings that the dimensions differ among themselves -- that the items are discreet from one another across the dimensions.

4. What challenges might these organizations face when engaging in evaluation work?

To better understand specific issues for the organizations within each dimension, the instrument items were ordered by the size of their means (in ascending and descending order). As can be seen in Table 4, of the top ten item means across all of the organizations, four are in the *Teams* dimension, three are in the *Culture* dimension, two are in *Leadership*, and one is in the *Systems and Structures* dimension. These findings imply that respondents believe their teams are accomplishing work in ways that support individual and team learning. In addition, there is some reason to think that in most of the participating organizations, the organization's culture supports the sharing of knowledge, asking questions, and using each other as resources.

Table 4. Ten Highest Ranked Item Variables According to Means

Instrument Item	N	Mean
#75 "Teams are an effective way to meet an organization's goals." (Teams)	190	4.15
#2 "Employees ask each other for information about work issues and activities." (Culture)	232	4.13
#36 "Managers and supervisors support the sharing of knowledge and skills among employees." (Leadership)	230	3.95
#1 "Employees respect each other's perspectives and opinions." (Culture)	230	3.91
#8 "Asking questions and raising issues about work is encouraged." (Culture)	232	3.90
#79 "Evaluation would help us provide better programs, processes, programs and services." (Evaluation)	228	3.89
#72 "Team meetings strive to include everyone's opinion." (Teams)	191	3.87
#76 "Integrating evaluation activities into our work would enhance the quality of decision-making." (Evaluation)	228	3.86
#74 "Teams accomplish work they are charged to do." (Teams)	192	3.86
#73 "Teams are encouraged to learn from another and to share their learning with others" (Teams)	190	3.81
#35 " Managers and supervisors believe that our success depends upon learning from daily practices." (Leadership)	229	3.81
#53 "Employees meet work deadlines." (Systems & Structures)	231	3.81

Table 5 presents the items with the lowest mean ratings across the eight organizations. As can be seen, six of the ten lowest rated items are in the *Systems and Structures* dimension, with two in the *Culture*, one in the *Evaluation*, and one in the *Communication of Information* dimension.

The overall picture for these pilot organizations suggest that (a) employees have more work than they can accomplish in timely ways, (b) find little support for trying something new, and (c) don't believe the reward and recognition system sufficiently supports their learning or experimenting with new ideas. In addition, there appears to be few mechanisms for evaluation or for documenting the success of past change efforts. While the aggregated data do show some interesting trends across the eight organizations, it is important to note that each individual organization had their own highest and lowest rated items within each dimensions and thus have different strengths and challenges as they attempt to learn from evaluation and their practice.

Discussion

The results of this research further confirm that the ROLE instrument effectively measures the constructs of organizational learning and evaluation. Not only did respondents vary in how they answered each item, but they also varied in how they rated each dimension overall across the eight dimensions. In other words, respondents were able to determine the discreet nature of each instrument item. These findings suggest that the instrument may indeed be useful to organizations that are interested in understanding where their strengths and weaknesses are relative to integrating evaluation into their organizational learning practices.

Table 5. Lowest Ranked Item Variables According to Means

Instrument Item	N	Mean
#55 "Employees are able to get their work done in a timely way." (Systems & Structures)	230	2.81
#49 "Work commitments do not exceed employees' capacity to fulfill them." (Systems & Structures)	231	2.87
#84 "There are evaluation processes in place that enable employees to review how well changes we make are working." (Evaluation)	224	2.94
#61 "There are adequate records of past change efforts and what happened as a result." (Communication of Information)	227	2.97
#40 "There is little bureaucratic red tape when trying to do something new or different." (Systems & Structures)	229	3.02
#20 "Employees generally view problems or issues as opportunities to learn." (Culture)	232	3.04
#50 "Employees are recognized or rewarded for helping each other learn." (Systems & Structures)	230	3.05
#51 "Employees are recognized or rewarded for experimenting with new ideas." (Systems & Structures)	230	3.06
#46 "The current reward or appraisal system recognizes, in some way, team learning and performance." (Systems & Structures)	230	3.08
#6 "Employees are more concerned about how their work contributes to the success of the organization than they are about their individual success." (Culture)	229	3.18

The finding that there were significant differences between those in a supervisory or management role was not particularly surprising, since we initially thought that managers might be more positive about how well their organizations or departments embody organizational learning principles. It often seems that those most closely tied to the daily operations of the organization – those that are on the front line, have different perceptions about how the organization supports their work. At the same time, we need to be cautious in interpreting these results. In categorizing the two groups, we combined respondents who checked that they were a "First-line supervisor," "Middle manager," or "Senior manager." The second group comprised those who checked "Administrative, Production, Sales, Non-Managerial Professional, Technical, Customer Service, or Other." We debated whether those in the "Administrative" category might also have supervisory responsibilities, and finally decided to place them in the non-managerial group. Thus, we cannot be certain that those in "Production," for example, might not be supervisors or managers in that specific area. In addition, the sample size for each group was uneven (n=44 for managers, and n=164 for non-mangers). To further understand whether real differences exist for these two groups, additional research using a more discreet classification scheme is warranted.

The length of time one has worked for the organization, however, does not appear to affect how respondents answered each item. We were somewhat surprised at this finding since we thought that newer employees would perceive the organization's support for organizational learning and evaluation practices differently than more veteran employees. In some ways, this is good news, since it may be one less variable that needs to be considered if implementing the instrument within an organization. However, once again, further research should determine if this finding holds up for a larger sample.

Of particular interest is the result of the highest and lowest rated dimensions. The fact that the lowest rated items clustered in the *Systems and Structures* dimension, suggests some serious obstacles to employee learning and evaluation within organizations. The lack of time to do their job, being faced with a bureaucracy that impedes experimentation, the lack of a reward and recognition system that supports learning, and the lack of any means to track progress on various initiatives, are all areas that will inhibit organizational learning and evaluation work. While these results present some concern, we suspect that these findings are not unique to the eight organizations included in this study. Future research might explore how organizations have overcome some of these obstacles or test various organizational change efforts that seek to create more learning oriented systems and structures. At the same time, given the seeming impossibility of changing an organization's systems and structures or culture, research might instead focus on how organizations can capitalize on their strengths to overcome deficiencies found in the other dimensions.

Conclusions

We believe evaluation is a useful approach to helping organization members answer pressing questions that challenge their success and future. In so doing, it can provide critical information for making decisions that result in increased individual, team, and organizational learning. Yet, it is often difficult to know where to start within an organization that is trying to integrate evaluative inquiry into its daily work practices. The Readiness for Organizational Learning and Evaluation (ROLE) instrument is one tool we believe can help organization members and learning and performance practitioners in particular, understand an organization's readiness to engage in, and learn, from evaluative forms of inquiry.

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Three Perspectives of Training Evaluation Based on Organizational Needs

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This article suggests that matching the intents of evaluation stakeholders and the evaluation emphasis has not been addressed in HRD. It is important for HRD professionals to better match the intents of evaluation, the intended users, and the aspects of evaluative process and information. Three perspectives of stakeholders on evaluation of training were developed as a means for ensuring the match between the intents and activities of evaluation.

Key words: Evaluation, Needs Assessment, Organizational Research

As the business environment becomes more competitive due to global influences, technological advancement, and other factors, organizations are more interested in developing high-performance workplace (Faerman & Ban, 1993). Thus organizations place more emphasis on developing workforce's skills, and knowledge through continuous learning to remain competitive. In return for this employer-supported training, organizations anticipate increased job effectiveness and performance. Higher tangible and intangible impacts are expected from organizations that spent over 58 billion dollars on employee training and education in both 1995 and 1996 (Bassi, Benson, & Cheney, 1996).

Organizations are demanding more accountability from providers of HRD programs for their employees (Robinson & Robinson, 1995; Swanson & Holton, 1999). Thus HRD professionals in organizations are increasingly being asked to show how their efforts add value to their organizations. In many organizations, training evaluation is thought to be the most appropriate method of demonstrating this value (Preskill, 1997). While the importance of training evaluation has been emphasized by both scholars and practitioners (Brinkerhoff, 1987; Rouiller & Goldstein, 1993; Kirkpatrick, 1994), there have been few systematic evaluations to demonstrate the effectiveness of training programs by either organizational managers or trainers (Dionne, 1996; Faerman & Ban, 1993).

With the advent of Kirkpatrick's four level evaluation model, many models have been suggested to help managers and trainers measure and evaluate the efficiency and effectiveness of training programs (Baldwin & Ford, 1989; Brinkerhoff, 1987; Holton, 1996; Kaufman & Keller, 1994; Noe & Schmitt, 1986; Swanson & Holton, 1999). Unfortunately, evaluation models are seldom used wisely or used to answer the most vital questions that face every organization. Preskill (1997) argues that most of these models were not grounded in a philosophy or theory of evaluation and position evaluation as a periodic event that is the sum of a set of technical skills and activities focuses on a narrow set of variables using limited numbers of designs and methods. Holton (1996) suggests that at best most models are simple taxonomies or classification schemes because they do not fully address all constructs underlying the phenomena of interest. As a result evaluation of training has focused on a narrow set of questions using tools and methods and then has failed to show HRD's contribution to organizations.

HRD scholars and practitioners agree that training programs influence and are influenced by elements of a larger organizational system (Brinkerhoff, 1997; Rummler & Brache, 1995; Swanson, 1994). They advocate that training program be thought of in terms of improving performance in its broader systemic context. After all, the evaluation of training must be treated as the study of a part of an organizational subsystem that must be understood within an organization context (Dionne, 1996; Tannenbaum & Woods, 1992) where the roles, responsibilities, and tasks of evaluation vary with both time and circumstances.

The objectives of training programs reflect numerous goals ranging from trainee progress or training program improvement to organizational goals. Every stakeholder of training program in organizations intends to judge training activities against his or her own criteria, and the information they seek is not used for the same purposes. There is a whole set of values and attitudes that belong to the trainees, the trainers, and the HRD managers, the evaluators, and the decision-makers in the organization. It would be naïve to suggest that these values and attitudes do not affect many of the decisions involving both the evaluation and the resulting data interpretations. Thus it is necessary to shift attention from the methods or object of evaluation to the intended users of evaluative processes and information, and their intended uses (Patton, 1997). Accordingly, organizations should evaluate its

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training programs in terms of achieving the goals of evaluation while the goals should derive from the needs of the intended stakeholders of evaluative processes and information.

The failure of past evaluations has to do with the fact that most of organizations has selected the questions and methods of training evaluation or adhered to a particular perspective of training evaluation without having clear goals of evaluation. A useful evaluation should be responsive to the questions and needs that organizations and their stakeholders must face. In this regard, it will be important that evaluators help stakeholders of training programs identify their evaluation needs, determine what information and processes would best address those needs, and generate findings what would yield the type of information needed by the intended stakeholders.

The purpose of this study is not to present another evaluation model, but to suggest a training evaluation framework that organizations can consult when evaluating their training programs. The framework proposed here is flexible enough to accommodate most any evaluation model and may add components favorable to structural integration with the system of training activities to be evaluated. First, this study describes three perspectives of training evaluation, including their definition, the issues or questions of evaluation to be addressed, and representative evaluation models. Second, the study concludes with ideas on how the proposed framework may contribute to HRD practice and research.

Theoretical and Research Questions

The framework of evaluation proposed here intends to address the following questions:

1. What are major perspectives of training evaluation on which HRD practitioners and researchers are based on?
2. What evaluation issues do each perspective of training evaluation address?
3. What are the implications of three perspectives of training evaluation on HRD practice and research?

Three Perspectives of Training Evaluation

Despite the fact that the approaches and models of evaluation adopted by HRD practitioners and researchers are almost as varied as their proponents, HRD practitioners and researchers have only explored the issues of the models or methods of training evaluation. They have not paid full attention to the intents of evaluation, particularly on the part of HRD professionals or their organizations. Patton (1997) argues that evaluation without an intention to use the findings should be meaningless at all. For an evaluation to be effective and efficient, there should be a plan for the intentional use of findings. Otherwise, investing the resources in an evaluation may be questionable. There seems quite a high degree of consistency about what is considered to be the primary intents of evaluation underlying evaluation activities. In Table 1, those intents of evaluation are described in terms of three perspectives of stakeholders in organizations on training evaluation. They are called as judgment-oriented, improvement-oriented, and learning-oriented evaluation.

Judgment Perspective of Training Evaluation

Known as a kind of instrumental use (Shadish, Cook, & Leviton, 1991), the judgment perspective of evaluation refers to the assessment of merit and worth of training program, thus making direct decision about changing training program based on evaluation results. Judgment perspective of training evaluation aims to determine the overall worth of training through developing a warranted judgment of the important characteristics and the value of the training. The judgment perspective of training evaluation helps HRD professionals to: 1) judge the overall effectiveness of the training program; 2) make decisions about continuing or terminating the training program; 3) make sure that the training program be implemented and effective as planned; 4) allocate new budget outlays for the training program; and 5) accomplish fundamental change efforts in how organizations achieve their goals. In short, this perspective of evaluation demonstrates conclusively that something has happened as a result of training activities. This will be linked to judgments about the value of the training program.

The evaluation models or approaches based on judgmental perspective are labeled the outcomes approach because the emphasis is on demonstrating that the appropriate outcomes occur (Holton & Hannigan, 2000). Since Kirkpatrick's four-level model of reaction, learning, behavior, and results (Kirkpatrick, 1994), a variety of HRD scholars have offered elaborations, updates, and variations in an attempt to improve the taxonomy. Kaufman and Keller (1994) have proposed the addition of societal impact as a fifth level and Brinkerhoff (1987) offered a six-stage model that added two more level of formative evaluative process to Kirkpatrick's model. Through the results

Table 1. Three Perspectives of the Evaluation of a Training Program

Perspectives	Definition	Examples of Use	Typical Questions	Representative Models	Reference Examples
Judgment	To determine the overall worth of a training program through judgment of the value of its outcomes and success	☐ Judge the overall effectiveness of the program. ☐ Determine how effective the program is in meeting the needs of those it is intended to help. ☐ Decide if the program is sufficiently effective to be continued or replicated. ☐ Judge whether the program has been implemented as planned. ☐ Select more effective alternative to the program.	☐ Did the program meet the needs of those who intend to implement? ☐ Did the program resolve a meaningful problem in the organization? ☐ Did the program achieve desired outcomes? ☐ Should the program be continued or ended? ☐ Were the budgets of the program used appropriately for the intended purposes? ☐ Does the program work better than training alternatives?	☐ Kirkpatrick's four-level model ☐ Swanson & Holton's model ☐ Brinkerhof's six-stage model ☐ Phillips' five-level model ☐ Kaufman's OEM ☐ Forecasting financial benefits	☐ Kirkpatrick (1994) ☐ Swanson & Holton (1999) ☐ Brinkerhoff (1987) ☐ Phillips (1997) ☐ Kaufman & Keller (1994) ☐ Jacobs (1992)
Improvement	To modify and enhance a training program through a causal and timely assessment, diagnosis of observed, and decision of which change to pursue	☐ Improve the implementation of the program. ☐ Provide feedback for fine-tuning an established program. ☐ Solve unanticipated problems from the program. ☐ Make sure that the program participants are progressing toward desired outcomes. ☐ Monitor and tailor the processes of program.	☐ What are the program's strengths and weaknesses? ☐ What kinds of implementation problems have emerged and how are they being addressed? ☐ To what extent are participants progressing toward the desired outcomes? ☐ Which types of participants are making good progress and which types aren't doing so well? ☐ What are participant perceptions of organizational climate to the program? ☐ What are staff and participant perceptions of the program?	☐ Holton's model ☐ Stufflebeam's CIPP model ☐ Baldwin & Ford's training effectiveness model ☐ Brinkerhoff's six-stage model ☐ Kaufman's OEM	☐ Holton (1996) ☐ Stufflebeam (1971) ☐ Brinkerhoff (1987) ☐ Baldwin & Ford (1988) ☐ Kaufman & Keller (1994)
Learning	To foster organizational learning through involving managers and training staff in evaluation	☐ Improve organizational capacity to set training policies, design and administer training programs, and evaluate. ☐ Generate knowledge about the training program model, theory, outcome measurement and lessons learned. ☐ Support and reinforce the training program. ☐ Increase engagement, self-determination, and ownership of training staff and managers. ☐ Enhance shared understanding among stakeholders. ☐ Establish communication within an organization.	☐ What are the expected or unexpected impacts of the program on the organization? ☐ What can be learned from the program's experiences and results to inform future efforts? ☐ What were the factors that were important in the success or failure of this program? ☐ On what theoretical assumptions and model is the program based?	☐ Preskill & Torres' Evaluation Inquiry ☐ Patton's Developmental Evaluation	☐ Preskill & Torres (1999) ☐ Patton (1997)

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assessment system, Swanson and Holton (1999) have tried to provide HRD practitioners with the systematic evaluation process for assessing learning, performance, and perceptions. With an addition of return on investment to the taxonomy, Phillips (1997) and Jacobs, Jones, Neil (1992) suggest that the financial benefits of training programs be forecast because organizational results are more likely to be achieved if the benefits are calculated and known to stakeholders involved in the training.

Sometimes even if it is possible to overcome the technical difficulties in measuring outcomes and changes resulting from training activities, it has still to be decided against whose criteria of value such changes might be assessed. Patton (1997) argues that specifying the criteria for judgment is central and critical in judgmental evaluations. Scriven (1991) also emphasizes the importance of establishing the evaluation criteria when he presents *the logic of valuing* rules, which are 1) selecting criteria of merit; 2) setting standards of performance; 3) measuring performance; and 4) synthesize results into a judgment of value. Alliger, Tannenbaum, Bennett, Traver, and Shortland (1997) also insist that for any training evaluation to be valuable, training criteria must be meaningful to decision makers as well as psychometrically sound, and must be able to be collected within typical organizational constraints.

Notions of what are good and desirable outcomes for trainees are not universal. They may be presented as if they are self-evident and objectively determined, but in fact they are articulated primarily to serve the interests and expectations of stakeholders within organizations. Stakeholders are defined as those who have an interest in a training event, and thus may include trainees, trainers, HRD managers, and upper-level managers. In terms of judgmental evaluation, evaluators should identify all stakeholders involved with the training and attempt to identify what criteria they would use in assessing the value of the training. Any evaluation information can then be collected with these multiple criteria in mind.

Improvement Perspective of Training Evaluation

The second perspective of training evaluation is improvement-oriented evaluation. This training evaluation refers to the efforts to provide timely feedback designed to modify and enhance training program operations. That is, a more casual and timely assessment of merit and worth is conducted, and the results are reported to training program managers and staff who can then use the feedback to establish the need for training program modifications. It also focuses on diagnosing the parts of he training program that are causing observed problems, considering alternative approaches to these parts of the training program, and deciding which change to pursue. The improvement perspective of training evaluation helps HRD professionals to: 1) improve the implementation of training program; 2) solve unanticipated problems; and 3) make sure that trainees are progressing toward desired outcomes. In effect, the improvement-oriented evaluation is to provide information about the training methods that are most effective, offer guidance for improving the training operations, and identify difficulties and weaknesses within the processes. Along with the judgment-oriented evaluation, the improvement-oriented evaluation is very important because the evaluation is linked to cost-effectiveness that can lead to positive business results (Rohrer-Murphy, Moller, & Benscoter, 1997). In general, the followings can be considered as major parts of improvement-oriented evaluation.

First, the improvement-oriented evaluation will concentrate on the performance of any critical training functions; on those aspects of the training with high visibility and importance, and on any areas where there may be indication of trainee dissent, conflict, or uncertainty, including trainer's ones. This evaluation reviews the training operations in two different but interconnected ways. On the one hand, it focuses on the efficiency of training operations (Kaufman & Keller, 1994). It should be reviewed regarding how well resources (financial, materials, personnel, and so forth) are being used in the training program. It was common and necessary to report on whether the training program has met budgetary parameter and delivery schedules. On the other hand, it also examines how well trainees are reacting to the training activity and how well trainees progress toward expected outcomes. Trainee discontent or dissatisfaction or misleading can be a serious problem. Beyond judging trainees' satisfaction to training program, the sources of the problems should be identified and corrections applied through evaluating training activity.

Second, while training quality can be assessed and improved on the basis of the quality of training methods and materials or direct learning results, it is ultimately judged on its contribution to organizational goals. As Brinkerhoff and Montesino (1995) put it, a training that yields some effects but that was not needed is not efficient for the organization. For sure, identifying organizational needs and deriving the training goals from them must be an activity that needs to take place in the beginning stage of the design process (Goldstein, 1993). However, organizational needs may change in the course of time, so evaluators should constantly be aware of the organizational needs during training delivery. Those who emphasize the improvement-oriented evaluations will continue to examine if training delivery meets organizational needs over time.

Third, according to extensive research on transfer of training (Baldwin & Ford, 1988; Holton, 1996; Noe & Schmitt, 1986), training characteristics influence the transfer of training into the job, such as motivation, job-involvement, self-efficacy in successful completion of the training program, and ability to learn. The individual characteristics of trainees should be identified in the evaluation process because they determine the degree of successful learning and transfer. Furthermore, as the training should have impact on an organizational level, it is regarded as important to yield information about work related problems and needs as about personal ones. Trainees are less likely to apply the new skills if managers do not show that they value training. As a result, the training effect will be minimal. HRD practitioners are responsible for undertaking activities during the total training process to keep management and supervisors involved and should ask their help in implementing a successful training program (Holton, Bates, Seyler, & Carvalho, 1997). Evaluators should assess the degree of the management and supervisors' involvement and commitment through the total training process. In terms of the training design, HRD researchers (Baldwin, Magjuka, & Loher, 1991) assert that trainees who had a choice of training content had greater motivation to learn. Noe and Schmitt (1986) also indicate that the degree to which a trainee is involved in the needs assessment process and given choices about training will influence to learn. Goldstein (1993) argues that trainees who are taught the manner in which to apply their knowledge on the job are likely to successfully transfer the learning to the job. Evaluators should assess the degree to which the trainees are involved in the training design or selection and the training content reflect the job context.

In effect, the improvement-oriented evaluation extends its scope from traditionally focusing on training material, methods, and delivery schedule to continuous examination of organizational needs, assessment of training characteristics and work environment, and effective training design. If training will not yield to its desired outcomes, improvement-oriented evaluators should search for its causes in order to provide concerned stakeholders with the information used for enhancing training program. The information from improvement evaluation will serve the needs of organizational stakeholders who require developing training efficiency and effectiveness.

Learning Perspective of Training Evaluation

The third perspective of training evaluation is learning-oriented evaluation. Learning-oriented evaluation reflects two aspects of evaluation utilization. One involves the conceptual use. Conceptual use occurs when an evaluation influences decision makers' and stakeholders' cognitive processing (thinking) about a present or future program. In terms of conceptual use, learning-oriented evaluation seeks to become aware of evaluation results, become aware of features of a program from an evaluation, forming attitudes about a particular training program because of an evaluation and knowledge about evaluation in general (Johnson, 1998; Patton, 1997). The other involves, what is so called, the process use. Process use occurs when behavioral and cognitive changes occur in persons involved in evaluations as a result of their participation (Patton, 1997; Preskill & Caracelli, 1997; Schulha & Cousins, 1997). It results from experiential learning and reflection.

In terms of both conceptual and process use, learning-oriented evaluation represents a view that evaluation can be a catalyst for learning that has the potential to improve and transform individuals and organizations. Supporting the role of evaluation in this aspect, Preskill and Torres (1999) suggested new definition of evaluation as follows. "Evaluative inquiry is an ongoing process for investigating and understanding critical organizational issues. It is an approach to learning that is fully integrated with an organization's work practices, and as such, it engenders (a) organization members' interest and ability in exploring critical issues using evaluation logic, (b) organization members' involvement in evaluative processes, and (c) the personal and professional growth of individuals within the organization (p.1-2)". Thus training evaluation may have long term payoffs through improved skills, improved communication, improvement of decision making, increased use of evaluation procedures, changes in the organization and increased confidence in and sense of ownership of evaluation products.

In effect, learning-oriented evaluation refers to efforts to understand the training program better, enlighten top management, staff, and other stakeholders, enhance communications among them, and facilitate sharing of perceptions through engaging in training evaluation. In this regard, learning-oriented evaluation will help HRD professionals to improve organizational capacity to set training policies, design and administer training program, to support and reinforce the training program, to increase engagement, self-determination, and ownership of all stakeholders, and to rethink the ways to design and connect various programs for improving employee performance.

Therefore, learning-oriented evaluation must be viewed as a strategic organizational activity. Evaluation has traditionally been treated as an after-thought or as a post-course reaction survey at the end of a training session. There is little interest on the role evaluation can play in helping organizations achieve their goals, or how evaluation can facilitate the organization's growth and development. Learning-oriented evaluation provides HRD practitioners and their organizations with the insights on how evaluative information and activities may induce cognitive and behavioral changes within an organization context.

Contribution to HRD Practice and Research

Organizations around the world are doing more training and spending more money than ever before. Unless organizational leaders in training engage in far greater use of evaluation and other quality improvement efforts than they now pursue, they face serious threats to its survival. The challenge is to do more of a different order of evaluation, that is, proactive and directive evaluation that will lead HRD profession and practice to a new level of operation and impact.

Evaluation of training should be considered as a study of organizational subsystem that is only understood within an organizational context where the roles, responsibilities, and tasks of evaluation vary with time and circumstances. In this regard, different stakeholders for training evaluation may desire different evaluation information and processes. To provide meaningful training evaluation, it is important for HRD professionals to be able to match the intents of evaluation, the intended users, and the aspects of evaluative process and information.

The primary justification for evaluation of training is its usefulness to concerned stakeholders. For the evaluation to be utilized, HRD professionals should do top quality evaluations that are responsive to the concerns of those whose training programs they evaluate, and they should do their best to communicate results in multiple ways to ensure that stakeholders know the results and see their relevance for program action. So HRD professionals should spend a substantial amount of time and efforts in learning about the informational needs of those for whom the evaluation is being done.

For the HRD practitioners, the proposed three perspectives of training evaluation offer a means for identifying the intents of organizational stakeholders whose training program is evaluated and so preparing what questions must be answered by the evaluation and what methods must be employed to evaluate. With the proposed framework of training evaluation, HRD professionals will prove that the evaluation findings and processes are more valid and can be used for important decision-making concerning HRD practices and policies in the organization.

For the HRD researchers, there must be a challenge to construct and validate the instrument of examining the perspectives of stakeholder in the organization on evaluation of training. The proposed framework of training evaluation can be used as potential template of the instrument. Furthermore, if the emphasis of evaluation is to meet the intents of the stakeholders who will use the information and processes, there must be more needs of understanding about match between the intents of the stakeholders and the emphasis of evaluation. In addition, the researchers will need to examine the possible conflicting views of stakeholders in the organization because there are different outcomes desired by different stakeholders.

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Motivation to Improve Work Through Learning in Human Resource Development

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Motivation in HRD has traditionally been conceptualized as motivation to learn or motivation to train. This paper argues it is a too limited concept because it does not incorporate motivation to use learning to improve performance. A new construct called motivation to improve work through learning is proposed, along with its theoretical rationale and measures. A confirmatory factor analysis is reported which provides initial evidence of construct validity. Implications for HRD research and practice are discussed.

Keywords: Motivation, Confirmatory Factor Analysis, Transfer of Learning

It has become widely accepted that people provide organizations with an essential source of competitive advantage (Prahalad, 1983; Pfeffer, 1994, Wright, McMahan, & McWilliams, 1994). Arguably, the success of any organization is largely contingent upon its ability to unleash and maximize the talents and abilities of its workforce. It logically follows, then, that employee development programs are one of the most important activities of any organization. Empirical evidence generally supports this contention and indicates that comprehensive training and development activities produce beneficial organizational outcomes (Bartel, 1994; Knoke & Kalleberg, 1994; Russell, Terborg, & Powers, 1985; Swanson, 1998).

To remain competitive, firms must build and develop intellectual and knowledge capital. Economist Theodore Schultz recognized the importance of training and development efforts long ago, equating knowledge and skills with human capital. Human capital theory suggests that people possess skills, knowledge, and abilities that are economically valuable to firms (Becker, 1993; Youndt, Snell, Dean, Lepak, 1996). Schultz (1962) argued that investments in education and training were critical to organizational and national productivity and growth. Thus, well-trained, efficient, and capable workers are critical to the success of any organization, and key components in the success of effective training initiatives include employee skills and commitment (Snell & Dean, 1992).

However, the effectiveness of organizational training and development efforts is not solely contingent upon either the learning content or the quality of the delivery methods. Learning within the organizational context is also heavily dependent upon the trainability of participants. Noe (1986) asserts that the concept of trainability is defined as a function of the trainee's ability, motivation and environment [Trainability = *f*(Ability, Motivation, Environmental Favorability)]. Thus, there must be an underlying motivational factor at work in compelling the individual to participate in organizational training programs, in addition to ability and a supportive environment. Although it is not hard to imagine a work scenario in which employees are "forced" to attend training sessions, not even the most Machiavellian managers can mandate the level of participation that trainees are expected to expend. In other words, attendance is not equivalent to participation. Motivation then is one of three core components necessary for workplace training to be effective and lead to desired outcomes.

This paper will argue that traditional conceptualizations of motivation to learn or motivation to train are inadequate for HRD purposes. Instead, this paper proposes a new construct called motivation to improve work through learning. We first review the literature on motivation in HRD. Then, the theoretical rationale for this new construct is presented along with proposed measures. A confirmatory factor analysis is reported which provides initial evidence of construct validity. Finally, implications for HRD research are discussed.

Background

The motivational level of trainees is a foundational component of the effectiveness of organizational training programs. Goldstein (1991, 1992) emphasized the importance of motivation:

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> Before trainees can benefit from any form of training, they must be ready to learn; that is, (a) they must have the particular background experience necessary for the training program, and (b) they must be motivated (p. 541).

Motivation to Learn. Motivation to learn and motivation to engage in learning activities are constructs that are both closely related to each other and closely related to work motivation. According to Noe (1986), motivation to learn is described as the trainee's desire to learn the content of training and development activities. With regard to training, motivation acts at the force that energizes or creates enthusiasm for the program (energizer); is a stimulus that guides and directs learning and content mastery (director); and, influences and promotes the application of newly acquired skills and knowledge (maintenance) (Noe, 1986).

Noe and Wilks asserted that "motivation to learn, motivation to transfer, and evaluation of previous development experiences have a direct effect on employee's participation in development activities" (1993, p. 292). In 1993, these researchers developed and tested a conceptual model of development activity that was based on studies conducted by Dubin (1990), Farr and Middlebrooks (1990), and Kozlowski and Farr (1988). They found that motivation to learn, perception of benefits, and work environment perceptions had significant unique effects on employee development activity. Research efforts of Baldwin, Magjuka, and Loher (1991); Hicks and Klimoski (1987); Mathieu, Tannenbaum, and Salas (1992); Quinones (1995); Ryman and Biesner (1975) and Tannenbaum, Mathieu, Salas, and Cannon-Bowers (1991) also indicated that there is a relationship between motivation to learn, learning, and completion of training programs (Noe and Wilk, 1993). As Smith-Jentsch et al., (1996) stated, "trainees who are motivated to do well in training are more likely to learn the content or the principles of a training program than are less motivated participants" (p. 110).

Despite these studies, motivation to learn is a training variable that has been somewhat neglected in training-related research (Clark, Dobbins, & Ladd, 1993). Similarly, motivation to engage in training activities is a construct that has also been greatly neglected by researchers although many researchers readily recognize and acknowledge the importance of the constructs. Recently, Ford et al. Suggested that "efforts to improve trainee motivation during training (i.e., allowing for mastery goals) may lead to better transfer" (1998, p. 230). As Clark et al. (1993) maintained, even the most sophisticated and well-designed training programs cannot be effective without the presence of motivation to learn in the trainees. They argued that "it is important that the training literature develop a better understanding of the motivation-to-learn construct and the factors that affect it" (Clark et al., 1993, p. 293).

Mathieu, Tannenbaum, and Salas (1992) are among the few who have investigated the relationship between training and individual characteristics. They developed a model depicting the influence of individual characteristics and situational constraints on trainees' motivation to learn and actual performance and found that reactions to training mediated the impact of assignment method and training motivation on actual performance. Sanders and Yanouzas (1983) also studied the relationship between individual characteristics and training. In an investigation regarding the trainers' ability to socialize trainees to the learning environment, they stated that individuals enter the training situation with certain attitudes and expectations may either positively or negatively impact the learning process.

The Relationship Between Motivation To Learn and Training Effectiveness. On an intuitive level, motivation to learn seems to be an important precondition of learning. Goldstein (1992) pointed out that individuals who were motivated when they approached the training situation had a greater advantage than those with a lower level of motivation. Several researchers (e.g., Baldwin et al., 1991; Baldwin & Karl, 1987; Hicks & Klimoski, 1987; Martocchio, 1992; Martocchio & Webster, 1992; Mathieu, Tannenbaum, & Salas, 1990; Noe & Schmitt, 1986; Quinones, 1995; Tannebaum et al., 1991; Warr & Bunce, 1995) followed this line of reasoning and investigated the relationship between trainees' motivation and learning. More specifically, Noe and Schmitt (1986), Hicks and Klimoski (1987), and Mathieu, Tannenbaum, and Salas (1990) found a positive relationship between scores on learning measures and an individual's motivation to learn (Goldstein, 1992). In still another study of the relationship between motivation to learn and learning, Ryman and Biersner (1975) found that trainees who strongly agreed with training-confidence scale items were more likely to graduate.

Warr and Bunce (1995) viewed motivation to learn as a two-tiered construct – distal and proximal. In distal terms, "individuals vary in the favorability of their attitudes to training as a whole. More proximally, those general attitudes are reflected in specific motivation about a particular set of training activities" (1995, p. 349). They studied 106 junior managers over a seven-month period. They hypothesized that there would be a significant positive relationship associated with learning score and general attitude, specific motivation, learning self-efficacy, analytic and behavioral learning strategies, educational qualifications. A significant association was found for distal and proximal motivation (r = .33 and r = .25, respectively).

Motivation to Transfe. Mathieu and Martineau (1997) recognized the importance of motivation in training effectiveness and stated that training programs will be unsuccessful if trainees are not motivated to transfer information they have learned back to their jobs. "Individuals who are motivated to learn initially (pretraining motivation) are also likely to be motivated to apply the skills they develop during training once back on the job" (Mathieu and Martineau, 1997, p. 196). They developed a conceptual framework depicting the relationship between trainees' motivation and traditional training criteria. (Mathieu and Martineau, 1997). As they state:

> training programs are viewed as existing in a larger organizational context, subject to the influences of individual and situational factors . . . . Trainees come the programs with a history of organizational experiences and a knowledge of what they will confront when they return to their jobs. In short, participants enter and leave training with varying levels of motivation that will likely influence how much they learn, whether they transfer learning to the job, and ultimately how successful the program is. It is important to consider the roles of individual and situational influences on trainees' motivation (1997, p. 193).

It is therefore somewhat surprising that few studies have examined motivation to transfer. Baldwin and Magjuka (1991) found that trainees who entered training expecting some kind of supervisory follow-up reported stronger intentions to transfer. They also reported higher intentions to transfer when training was mandatory. Tannenbaum, Mathieu, Salas, and Cannon-Bowers (1991) conducted a study using naval recruit training. Their findings suggested that trainees who have more positive reactions to training and who learn more were more likely to have higher post-training motivation. Huczynski and Lewis (1980) concluded from their study that issues important to whether or not trainees use their training included: whether or not they attended the course on their own initiative; how helpful they believed the training would be to them on their jobs; and the motivational climate of the organization, in particular, supervisor support. Baumgartel and Jeanpierre's (1972) study of management training found that managers who perceived training as helpful in learning skills and techniques directly related to their job situation were more likely to attempt to use their training when they returned to work.

Motivation To Improve Work Through Learning Defined. As the studies above illustrate, research efforts to date have focused mostly on either motivation to learn or motivation to train as the dependent variable. However, the work improvement process does not entirely consist of nor does it end with either learning or training. The primary desired outcome of organizational training programs is not just learning, but *improvements in work outcomes*. Therefore, using motivation to train or motivation to learn as a dependent motivation variable may be too limited for organizational learning environments.

The process of improving work through learning also involves an employee's willingness to transfer any knowledge acquired through such training programs to his or her own work processes. Following this logic, this study proposes and utilizes an entirely new construct – Motivation to Improve Work Through Learning (MTIWL). An individual's motivation to improve work through learning is a function of his or her motivation to train and motivation to transfer. Or stated mathematically:

$$\text{Motivation to Improve Work Through Learning (MTIWL)} = f(\text{Motivation to Train, Motivation to Transfer})$$

This construct is potentially a more powerful motivational construct because it incorporates both dimensions of motivation critical to achieving HRD outcomes.

Methodology

In this section, the procedures used to provide initial validation evidence for this construct are described.

Sample. Data for this study was obtained as part of a larger study involving a nonrandom sample of 247 subjects from a single private sector health insurance organization. Respondents were participants of in-house training programs, and ranged from clerical employees to mid- and upper-level managers. Training topics included computer training, team building skills, new employee training, technical training, and leadership training sessions.

Although a total of 247 employees participated in the survey, two surveys were identified as patterned responses and deemed not usable. This reduced the usable sample size to 245. Listwise deletion procedures reduced the usable sample size of the study to 239.

The average age of the respondents was 35.5 years (minimum = 19, maximum = 68, standard deviation = 10.516); 28.5% or 68 of the respondents were male and 71.5% or 171 of the respondents were female. Five of the respondents (2.0%) had less than 1 year work experience; 16 respondents (6.5%) had 1-3 years work experience; 30 respondents (12.2%) had 3-5 years work experience; 101 respondents (41.2%) reported 5-15 years work experience; 60 respondents (24.5%) had 15-25 years work experience; and 27 respondents (11%) had more than 25 years work experience. Fifty-five respondents (22.4%) reported less than 1 year with the company; 55 respondents (22.4%) reported 1-3 years with the company; 36 respondents (14.7%) reported 3-5 years with the company; 48 respondents (19.6%) reported 5-15 years experience with the company; 39 respondents (15.9%) reported 15-25 years with the company; and 6 respondents (2.4%) reported more than 25 years with the company.

Procedure. Surveys were administered to respondents at the beginning of an organizational training program. All participants were required to attend these classes as part of their job responsibilities. In each case, the trainer read a description of the research project with instructions for participation from a prepared script. Questionnaires were presented to participants as part of the training program. Instructors were told to allow participants to withdraw if they had objections to the study, but none objected. All responses were completely anonymous. The request for demographic information was limited to age, gender, number of years work experience, and number of years with this organization.

Instrumentation. As previously stated, Motivation to Improve Work through Learning is presumed to be a function of an individual's motivation to train and his or her motivation to transfer the knowledge and skills acquired through training initiatives to the work setting. Accordingly, scales measuring both of these components are a necessary part of the instrumentation for this study. Because it is desirable to have at least three indicators for latent constructs, four scales (two for each component) were selected to measure MTIWL. Scales from two instruments – the START (Strategic Assessment of Readiness for Training) (Wienstein, et al., 1994) and the LTSI (Learning Transfer Survey Instrument) (Holton, Bates, & Ruona, 2000) were selected for use.

The START instrument is comprised of eight 7-item subscales: Anxiety (α = .87); Attitude Toward Training (α = .71); Motivation (α = .65); Concentration (α = .83); Identifying Important Information (α = .75); Knowledge Acquisition (α = .75); Monitoring Learning (α = .78); and Time Management (α = .76) (Wienstein, et al., 1994).

Training Attitudes (α = .71) was selected as one of the scales used to assess individual motivation to improve work through learning. This seven-item subscale from the START instrument was used to measure attitudes held by individuals toward training. Examples of items included in this scale are: "I believe learning is important for professional development"; "I believe training programs are important for professional development"; "I volunteer to participate in training programs"; and "I would rather not participate in learning activities" (reverse coded).

The Motivation subscale (α = .65) of the START instrument was also used in this study. Sample items from this scale include the following: "I come to training sessions unprepared" (reverse coded); "I can easily find an excuse for not completing a training program assignment" (reverse coded); "I work hard to do well in training programs, even when I don't like them"; and "I try hard not to miss any of the sessions during a training program."

The LTSI (previously called the LTQ) (Holton, Bates & Ruona, 2000), a 68-item instrument, was developed to measure learning 16 factors which influence learning transfer. Exploratory factor analysis of the LTQ has revealed "an exceptionally clean and interpretable sixteen factor structure" (Holton, Bates, & Rouna, 2000). The motivation to transfer scale (α = .83) and performance outcomes expectations scale (α = .83) were selected for use in this study. Drawing on expectancy theory, the second scale was selected to include an outcome component of improving work through motivation. Sample items of the motivation to transfer scale include: "Training will increase my personal productivity"; "I believe training will help me do my current job better"; and, "When I leave training, I can't wait to get back to wok to try what I have learned." Sample items of the performance outcomes expectations scale include: "The organization does not really value my performance;" "For the most part, the people who get rewarded around here are the ones that deserve it;" "When I do things to improve my performance, good things happen to me;" and "People around here notice when you do something well."

Analysis. Confirmatory factor analysis (CFA) using Lisrel 8.30 was used to assess whether these four indicators measured the latent construct motivation to improve work through learning. A two-level model was hypothesized as shown in figure one. The first order factors were the four scales chosen as described above with the instrument items as indicator variables. The second order factor was the construct MTIWL. Thus, the model tests both the fit of the instrument items on the individual scales, and whether the four scales were reasonable measures of the hypothesized higher order construct MTIWL.

Results

The initial analyses with all instrument items included produced a marginally acceptable fit to the hypothesized model ($\chi^2_{(226)}$ 463.95, GFI = .86, AGFI = .82, CFI = .85; NFI = .75, RMSEA= .066, SRMR= .066, CFI= .85). Examination of the factor loadings and the significance of the paths as indicated by the t-values (t-values ranged from 1.55 to 11.33), and the fit indices resulted in the decision to remove several items. Specifically, item numbers 5 (t = 1.55), 10 (t = -3.29), 13 (t = 1.67), and 14 (t = 2.92) were removed as each had a loading below Nunn ally's (1978) and Hair et al. (1998) guideline of an acceptable minimum factor loading of .30. These items were 5) "It is more important to complete a training program than to understand the material being presented."; 10) "I work hard to do well in training programs, even when I don't like them."; 13) "I put off completing outside work assigned during training sessions."; and 14) "When training materials are difficult, I either give up or study only the easy parts."). Item 5 was part of the attitude toward training scale, while the other three items were part of the motivation to train scale. Both scales came from the START instrument.

Elimination of these items resulted in factor loadings that were all above .30, and all item paths were significant (t-values ranged from 5.23 to 11.33). In addition, the fit indices, presented in Table 4, revealed a slight improvement in fit. Specifically, GFI increased from .86 to .87; AGFI increased from .82 to .83; CFI increased from .85 to .87; NFI increased from .75 to .80. However, the RMSEA worsened, increasing from .066 to .074, as did the SMR, increasing from .066 to .067.

It was decided to explore whether additional improvements in fit could be reasonably obtained. Accordingly, the decision was made to examine the results of eliminating items with factor loadings below .50 which is a more conservative threshold than .30. Based on this more conservative guideline, items 1, 6, 11, (from the START instrument) and 24 (from the LTSI) were eliminated.

Removal of these additional items resulted in fit improvement. All item paths had significant loadings (t-values ranged from 2.63 to 10.86), and factor loadings ranged from .52 to .81. Fit indices generally improved as well (i.e., GFI in creased from .87 to .90; NFI increased from .80 to .85; CFI increased from .88 to .90;; AGFI from .84 to .85;). However, once again the RMSEA increased slightly from .074 to .076, and SMR increased slightly from .067 to .074.

Overall, these indicate an acceptable, though not strong, fit of the items on the hypothesized constructs given the fact that this is the first use of the construct. Figure 1 shows the final model with factor loadings. The squared multiple correlations for the scale items ranged from .25 to .65, indicating that a substantial portion of the variance in each item was explained by the first order factors (the scales). The squared multiple correlations for the LTSI scales were stronger than for the START scales. In addition, the results showed that the second order factor MTIWL explained 40% of the variance in attitudes toward training, 58% of motivation to train, 90% of motivation to transfer, and 47% of performance outcome expectations.

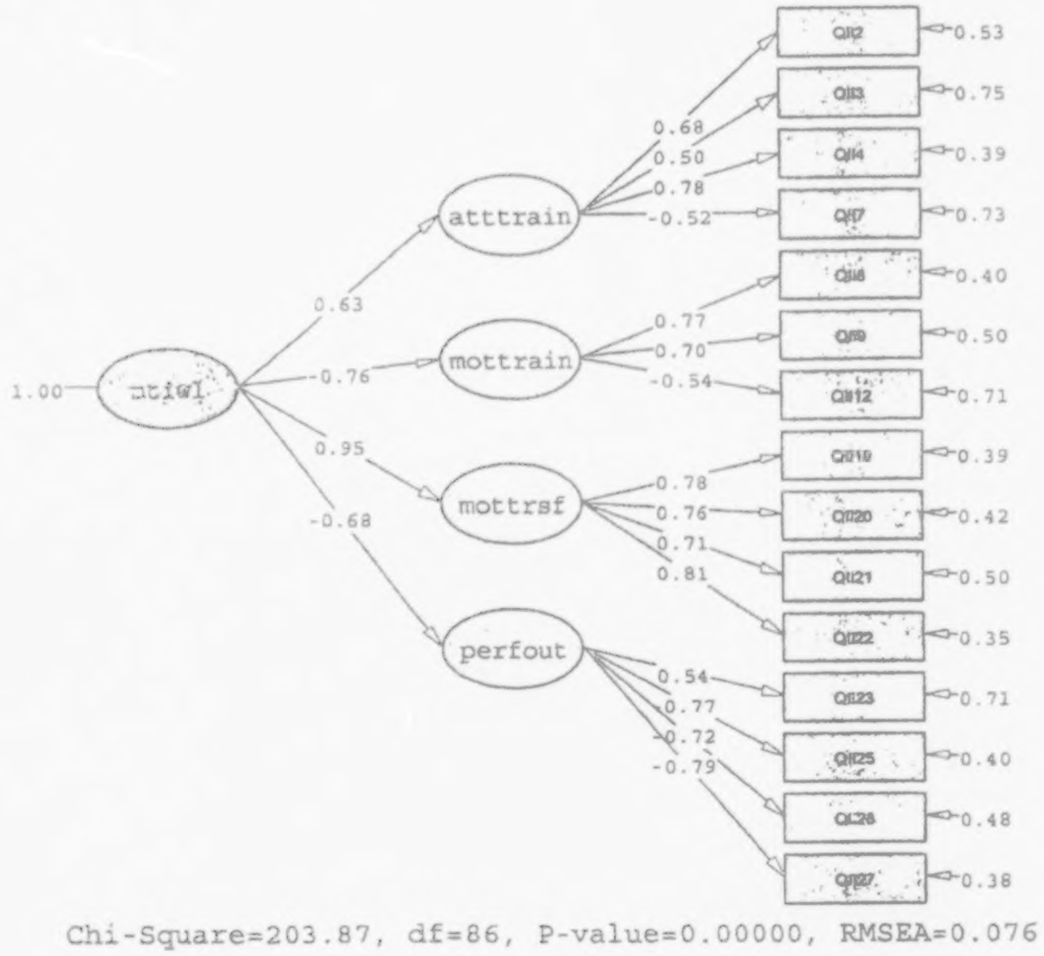
In addition, the results were compared to two different comparison models. First, the scales from the START instrument were combined and the scales from the LTSI were combined, resulting in two first-order factors. No acceptable solution could be calculated by LISREL, indicating that the two-factor solution did not fit the data. Then, the two scales from the START instrument were combined because so many items had been deleted from these two scales, resulting in a three-factor solution. This model did not fit the data as well as the four-factor solution hypothesized.

Conclusion

The motivation to improve work through learning construct is a new construct devised to assess an individual's motivation to train and his or her motivation to transfer knowledge or skills acquired through training initiatives to work settings. This is the first known use of this construct. As such, four scales were selected to measure this new construct – attitudes toward training and motivation to train, both from the START instrument (Weinstein et al., 1994); and, motivation to transfer and performance outcomes expectations, from the LTSI instrument (Holton, Bates, & Ruona, 2000). While the analysis indicated that the construct is four-dimensional, several scale items were eliminated due to low factor loadings in the confirmatory factor analysis. All but one of the items eliminated were from the START instrument.

Within this sample data, the four scales loaded on one latent construct, identified as motivation to improve work through learning. Each of the separate scales selected had evidence of initial content and construct validity. The four-factor structure fit the data moderately well. More importantly, much of the variance in the four first order factors was explained by the higher order factor, MTIWL. This provides initial evidence of construct validity for MTIWL.

These findings suggest that a reconceptualization of motivation in HRD contexts is warranted. Motivation can't be thought of as just motivation to learn or train. Because both learning and performance outcomes are desired from learning events, the motivation construct must encompass both motivation to learn and motivation to perform using that learning. We believe that reconceptualizing motivation in this manner may lead HRD researchers to different conclusions about motivational influences on HRD outcomes. We also believe that such a reconceptualization might lead to new practices aimed at enhancing motivation to improve work through learning.


1.00
mtiwl
0.63
-0.76
0.95
-0.68
atttrain
mottrain
mottrsf
perfout
0.68
0.50
0.78
-0.52
0.77
0.70
-0.54
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0.71
0.81
0.54
0.77
0.72
-0.79
QII2
QII3
QII4
QII7
QII8
QII9
QII12
QII19
QII20
QII21
QII22
QII23
QII25
QII26
QII27
0.53
0.75
0.39
0.73
0.40
0.50
0.71
0.39
0.42
0.50
0.35
0.71
0.40
0.48
0.38
Chi-Square=203.87, df=86, P-value=0.00000, RMSEA=0.076

Figure 1. Final MTIWL Model with Factor Loadings

Additional research should be aimed at expanding or refining the MTIWL construct. Because this is the first known study to examine motivation to improve work through learning, it should be tested on other sample

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populations both within and across other organizations. This study only provides initial evidence of construct validity. New studies with a more diverse sample might result in better fit.

Other scales should also be investigated to see if they would be better indicators of the motivation to learn portion of the MTIWL construct. The scales from the START instrument did not perform as well as desired in this study. Other scales might improve the fit of the model to more acceptable levels. Researchers could also examine the convergent and divergent validity of the construct with other variables in its nomological net. Studies comparing results using only attitudes toward training and motivation to train scales would help the impact of reconceptualizing motivation in this manner. Finally, researchers should examine its criterion validity by examining the relationship between this construct and performance.

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Improving Performance through HRD: Towards a Multi Level Model

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This study among 44 companies explores whether strategic HRD alignment and some organization and HRD related factors exert influence on the effects of HRD interventions. A multilevel analysis showed that strategic alignment, the problem that serves as starting point for HRD, the company HRD climate, the position of the HRD department, and the form of HRD interventions are important factors in impeding or enhancing HRD performance or effectiveness. Based on the results a multi-level model of HRD performance was developed.

Key words: HRD effectiveness, Drivers and outcomes, Multi-level model

Problem Statement and Research Question

Human resource development (HRD) in organizations could basically have the form of formal courses and off the job learning interventions, or consists of more informal learning and development taking place in teams and on the job. Ideally, in both cases the ultimate outcome of HRD is performance improvement. HRD has always had a continuing fascination with means versus ends (Swanson, 2000). However, only few research has examined this relationship and tried to determine a causal relationship between HRD and performance improvement (e.g. Ellinger, Ellinger, Yang, and Howton, 2000; Van der Klink, 1999; Hoekstra, 1999). Therefore, the purpose of this study was to empirically address this means-ends relationship. The research question is then, what factors will have an impact on the succesfull attainment of HRD goals and objectives. This question is the more important because in literature is estimated that only between 10 and 20 percent of capital invested in HRD and other learning interventions will lead to enduring performance improvement (Baldwin & Ford, 1988; Broad & Newstrom, 1992).

Performance Improvement: Some Theoretical Foundations

The research question fits within the performance paradigm of HRD. According to Weinberger (1998) this paradigm holds that the purpose of HRD is to advance the mission of the organizational system. HRD efforts have to improve the capabilities of individual working in the organization and the organizational systems in which they perform their work. The primary outcome of HRD in this context is not just learning, but also performance at various levels (Holton, 2000). Kaplan and Norton (1996) suggest two categories of performance measures: the so-called drivers and outcomes. Outcomes measure the effectiveness or efficiency relative to core outputs of the system, sub-system, process or individual, whereas drivers measure elements of performance that are expected to sustain or increase system, sub-system, process, or individual ability and capacity to be unique for particular performance systems (Holton, 2000). Together, these drivers and outcomes describe the cause and effect relationships in organizations (Kaplan & Norton, 1996), which implies that drivers should predict future outcomes.

Their theory fits well into the theory of HRD effectiveness, where HRD effectiveness is conceived as the extent to which HRD goals and objectives are achieved. (Wognum, 1999). Following the school-effectiveness theory (Scheerens & Bosker, 1997) this theory points as well to a means-goals ordaining between the ultimate criteria and the supportive, effectiveness enhancing criteria. The HRD effects can then be seen as ultimate criteria of HRD effectiveness, like Kaplan and Norton's output measures. Criteria, such as the HRD process itself, resource acquisition, adaptability to the environment, or the ability, satisfaction and motivation of employees, are seen as effectiveness enhancing criteria (Scheerens & Bosker, 1997; Wognum, 1999), just like Kaplan and Norton's performance drivers. Gaining insight into these criteria is necessary, as a means of interpreting the effects of HRD.

Multi-leveled Performance Outcomes

As mentioned before, the primary outcome of HRD is not just learning, but also performance at various levels (Holton, 2000). By acknowledging that Kirkpatrick's reaction level (Kirkpatrick, 1976) is a performance enhancing

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criterion, many authors at least discern the learning (effects on knowledge, skills and attitudes), behavior (effects on working behavior of individual employees), and results levels (effects on the performance results of individuals, groups, departments or the company) (Wognum, 1999). These multi-leveled outcomes fit within the multi-level theory, which, according to Klein, Tosi & Cannella (1999) integrates the micro domain's focus on individuals and groups with the macro domain's focus on organizations, environment and strategy. This will result in a better understanding of the influence of individuals on the organization and, vice versa, the organizational influence on individuals' actions and perceptions.

Factors Impeding or Enhancing HRD Performance or Effectiveness

Strategic HRD Alignment

In organizational effectiveness thinking, goals can be seen as the major defining characteristics of the effectiveness concept itself (Scheerens & Bosker, 1997). HRD goals will be developed during a strategic planning or decision-making process. In both processes systematically considered decisions are made on actions and resources to accomplish HRD goals, within certain environmental circumstances. Hannigan c.s. (2000) state that new research is needed that takes a more exploratory look at the decision process that managers use to make decisions about training.. The traditional view on strategic planning, holding in general that strategic plans have been developed by a planning staff at top management level, has some shortcomings (Mintzberg, 1994; Galagan, 1997). It, for instance, can destroy commitment. A more recent view on strategic planning for HRD includes the participation of all relevant stakeholders. It holds that strategic HRD planning - or strategic HRD alignment - is a dynamic and interactive process in which, as part of an ongoing and future company policy, HRD goals and objectives are formulated concerning employees' and company development (Wognum, 1999). The word 'strategic' emphasizes the company perspective and connects the link between HRD and the organizational goals and objectives. Strategic HRD alignment will then result in HRD programs or other, more informal, learning interventions that are closely linked to the company's situation. Based on policymaking models and on features of decision-making models, the process of strategic HRD alignment is characterized by four aspects: participation, information, formalization, and decision-making. *Participation* means the involvement of participants at the various organization levels in the alignment process. *Information* refers to the data needed to gain more insight in those company's situations which may call for HRD interventions. *Formalization* refers to the more or less formal consultative structures and information gathering procedures in the alignment process. *Decision-making* is concerned with the strategic choices of the alignment process, mainly the choice for HRD goals and objectives the HRD programs are intended to. By paying attention to these four aspects HRD alignment will enhance HRD effectiveness.

Contextual Factors

Following the multi-level approach, described above, it may become clear that the context of a specific organization will have an impact on the achieving of HRD performance or effectiveness, because HRD is a process and a system within a larger organizational and macro-environmental system (Tjepkema & Wognum, 1999; Swanson, 2000). It is often assumed that there is a close link between characteristics of this context and the way in which organizational processes evolve. Deviating from an appropriate model, contingency theorists maintain, creates a lower degree of organizational effectiveness (Khandwalla, 1977; Van de Ven & Drazin, 1985). From this perspective, HRD interventions will probably be less effective if HRD structures and processes do not match their contextual conditions. Therefore, the only way to assess the effectiveness of HRD interventions is to include the interaction with key components of the organizational system (Hannigan, Donovan, Holton c.s., 2000).

Literature indicates a number of contextual characteristics exerting influence on organizational effectiveness (Wognum, 1999). Considering the HRD perspective, those characteristics refer to the HRD function, which is usually shaped into an HRD department, as well as to the company in which the HRD function is embedded (Mintzberg, 1983; Tjepkema & Wognum, 1999). Macro-environment characteristics will usually be reflected in the kind of problems or developments with which the company is faced. Therefore, macro-environment characteristics act more indirectly by considering the problem that serves as a starting point for HRD interventions. This problem can be conceived as a characteristic of the company.

The connection between these types of elements and the outputs/outcomes of HRD is visualized in the research model depicted in Figure 1.

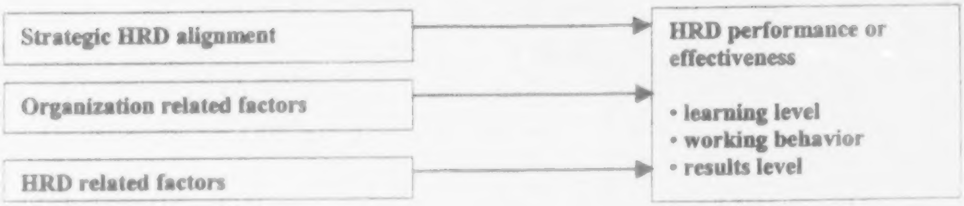

Figure 1. Research Model

As mentioned before, strategic HRD alignment is characterized by participation, information, formalization, and decision-making. According to literature (among others: Wognum, 1998; Wexley and Latham, 1991), organization-related factors that are supposed to have an impact on HRD effectiveness are, among others, the size and structure of the company, its HRD climate, the economic sector the company belongs to, and the degree of company's innovation. The structure and position of the HRD department, the degree of innovation, and the form the HRD program takes, and also transfer conditions are characteristics of the HRD function expected to influence HRD effectiveness (e.g. London, 1989; Mintzberg, 1983). Such problems serve as starting points for HRD interventions (Wognum, 1999).

Method

This paper is based on data derived from a survey among Dutch companies. These companies were selected from a national database from the Association of Chambers of Commerce.

Sample

Two organization related contextual factors were used as selection criteria: the size of the company, and the economic sector to which the company belongs. Following these criteria, 44 companies with more than 500 employees were selected from the aforementioned database: 11 from the industrial sector and 33 from the financial and commercial services sector. A non-response analysis showed no significant differences between the non-response group and the 44 companies in the study, concerning such contextual variables as size and structure of the company and structure and position of the HRD function. In each company one HRD program was selected (from the two frequently recurring fields of automation and social skills). This resulted in 23 selecting automation and 21 social skills programs. In order to define the effectiveness of the selected HRD programs, four categories of respondents within the company were selected: the HRD company representative, a maximum of 15 HRD participants, their supervising manager and (if present) their subordinates. All groups can be considered as having an interest in the results of the HRD programs (so-called stakeholders).

Data Collection

Data were collected in 1997, using four comparable questionnaires sent to 767 representatives of the four groups of stakeholders (44 HRD company representatives, 357 HRD participants, 242 of their supervising managers, and 124 of their subordinates). The questionnaires were designed to collect information on variables derived from the aforementioned theoretical framework. They comprised groups of questions and statements. Statements focused on respondents' opinions on the strategic HRD alignment process (22 in total: five on participation, five on information, five on the formal nature, and seven on the decision-making process) and perceived effectiveness (9 statements).

Additional questions in the questionnaire for HRD company representatives concerned the organization and HRD related factors. These included questions on the kind of problem that was a starting point for HRD (divided into three categories: to resolve a problem concerning employee, department or company performance; to improve certain working practices; or to change or renew the company situation), on the structure of the company and HRD function, on important innovations occurring since 1990 within the company as well as in the HRD function, on the design of the selected program, and on conditions made for transferring of the learning results into working practice. The questions had both pre-coded and open answers. Twelve statements focused on company HRD climate and comprised, among others, statements on a respondent' s perception of management attitude towards training. These statements also had answers on a five-point scale.

In order to compare the effects of the 44 HRD programs, the effectiveness as perceived by respondents was the object of study. This is based on the assumption that the importance given to effectiveness later is every bit as important as actual HRD effectiveness (Ford & Noe, 1987). Emphasis on perceptions is also allowed by the multilevel theory mentioned before, indicating that the combined micro and macro domain's focus will result in a better understanding of the organizational influence on individuals' actions and perceptions (Klein, Tosi & Cannella, 1999). Statements had answers on a 5-point scale, running from 1 (totally disagree/not al all) to 5 (totally agree, completely) and a possible 6 score (for unknown, no idea, or not relevant).

Response

For the automation response group 752 questionnaires were sent out (to 23 HRD company representatives, 320 trainees, 277 managers, 132 subordinates). For the 'social skills' group 740 questionnaires were sent out (to 21 HRD company representatives, 292 trainees, 251 managers, 176 subordinates). For both groups, all HRD company representatives filled in the questionnaire. The response rates for the other groups of respondents are for the 'social skills' group: 63% of the trainees, 49% managers, and 49% subordinates, and for the group of companies with automation programs: 54% of the trainees, 43% of the managers, and 29% of the subordinates.

Analysis

To arrive at answers to the research questions descriptive statistics, cross-tabulations, chi-square analysis and one-way analysis of variance were used for the analysis of the data. A factor analysis was used to assess the construct validity of the scales. As a consequence of multilevel theory as described in a former section, and of the two-stage sampling design (first a sample of companies, then a sample of respondents within each company, which resulted in a hierarchical, nested data structure) multilevel statistical models are used for the data analysis (cf. Bryk & Raudenbush, 1992; Goldstein, Rasbach, Plewis, et all, 1998) . These models allow us to make statistical inferences both at individual respondent (sample size 767) and company (sample size 44) levels.

Results

The study was intended to provide insight into which factors impede or enhance the achieving of improved performance on multiple levels.

Strategic HRD Alignment

In order to study the impact of strategic HRD alignment on HRD effectiveness two scales were constructed, 'strategic HRD alignment' and 'perceived HRD effectiveness'. A factor-analysis was used for the 22 items of strategic alignment to assess its construct validity. Instead of the expected four factors, six emerged from the analysis with varimax rotation covering all aspects of strategic alignment. A one-factor analysis was then performed to find out whether the construct of strategic alignment was one-dimensional instead of multidimensional. Five items with factor loading below .40 and with item-rest correlation below .30 were dropped for further analysis. Reliability of the remaining 17 items of the scale 'strategic HRD alignment' led to an alpha of .89. Analysis of the item content proved that all four aspects of strategic HRD alignment were represented in the constructed scale. This result justifies the conclusion that the four aspects are significant in connection. The scale 'perceived HRD effectiveness' was constructed on the basis of nine items at all three levels of HRD effects. The psychometric quality of this scale was studied with a one-factor analysis and with Cronbach's alpha (α=.89). No items were excluded.

Before analyzing the impact of strategic HRD alignment on HRD effectiveness, the representativeness of the strategic alignment scale has to be considered, because this scale is based on 17 items and 543 valid cases; 224 cases were not included due to a high level of item non-response. Analysis showed that the results based on 543 cases are representative. Respondents whose opinion on the strategic alignment process is included in the analysis do not differ significantly in their opinion on HRD effectiveness (M=3.52, SD=.70) from those who are excluded in the strategic alignment scale (M=3.54, SD=.71) (t=.24, df=537, p>.05).

Following the multilevel analysis strategy, as outlined above, model 0 was first constructed (see Table 1). This step was important to decide how much variance is explained by differences within and between companies and to find which variables account for this variance and to what extent. The results under model 0 indicate that the average perceived effectiveness score (the intercept) was 3.52, with a total variance of .49 (.097 + .393), of which

20% ((.097/.49)*100%) is variation between companies and 80% is variation between respondents within companies. The results under model 1 (Table 1) indicate that supervising managers, subordinates and HRD company representatives estimate higher effects than HRD participants do. Supervising managers perceive HRD effectiveness .11 higher than HRD participants do; subordinates .06; and HRD representatives .25. These differences are significant for managers and HRD company representatives. One percent of the variance in perceived effectiveness is explained by the groups of respondents.

The company score for stakeholders' opinion on strategic HRD alignment was constructed by first computing the mean of the deviation scores of each group of respondents and then calculating the mean of these four group scores. The results are presented in model 2 of Table 1. The data show that stakeholders' opinion on strategic HRD alignment within companies has a significant effect of .49 on perceived HRD effectiveness. The between companies effect of this so-called alignment perception is .47 (also significant at the .10 level one-tailed). Strategic alignment accounts for 22% of the variation in effectiveness scores (1-(.075+.304)/(.094+.389)*100%). The difference in deviation between model 1 and model 2a is 108.519 (884.932-776.413), with two degrees of freedom. This χ^2 analysis indicates a significant difference (p=.00). This proved stakeholders' perception on strategic HRD alignment is an important predictor of perceived HRD effectiveness. The perceived effectiveness is even extra positive, as the mean company score on strategic HRD alignment is higher.

Table 1: Effects (and Standard Errors) of Strategic Alignment on (Perceived) HRD Effectiveness (with respondent Group of HRD participants as Contrast Group) (Number of Respondents = 440; Number of Companies = 44)

	Model 0		Model 1		Model 2	
Intercept	3.52	(.06)	3.46	(.06)	1.83	(.16)
supervising managers			.11	(.07)*	-.05	(.06)
Subordinates			.06	(.12)	.14	(.11)
HRD company representatives			.25	(.13)*	-.03	(.12)
stragegic alignment within companies					.49	(.05)**
strategic alignment between companies					.47	(.19)**
unexplained variance						
between companies	.097	(.03)	.094	(.03)	.075	(.02)
Within companies	.393	(.03)	.389	(.03)	.304	(.02)
Explained variance (R^2)			1%		22%	
Deviance	890.204		884.932		776.413	
Degrees of freedom (df)			3		2	
model improvement (p) (to model)			.15 (0)		.00 (1)	

* significant at $\alpha < .10$ (two-tailed)

** significant at $\alpha < .10$ (one-tailed)

The Problem of Cognitive Dissonance

It is conceivable that respondents may have avoided cognitive dissonance (Etgen & Rosen, 1993; Festinger & Aronson, 1997), meaning that it is not very likely they will rate a course as effective while at the same time rating the strategic alignment process as poor. Multilevel statistical models are used to handle this problem. If avoiding cognitive dissonance affects the estimate of the association between stakeholders' opinion on strategic HRD alignment and effectiveness, this relates to the within-regression coefficient, but not the degree the between-company regression coefficient exceeds this within-company regression coefficient. There is no psychological explanation for a possible extra effect of the company mean for strategic alignment on perceived HRD effectiveness over and above the individual effects. For the individual level effect, the psychological explanation of avoiding cognitive dissonance may hold, but not for the so-called contextual effect. However, a study concerning the possible presence of cognitive dissonance has to start from company scores which are computed from the scores of individual respondents, regardless to which group they belong, instead of the mean scores of the four respondent groups, as was clarified before. The results of this computing procedure show that stakeholders' opinion on strategic HRD alignment has an effect of .49 on perceived effectiveness within companies and that for the between effect the opinion on strategic HRD alignment is .63, which is considerably higher than .49. This extra effect may not only be explained by avoiding cognitive dissonance, but must also be ascribed to the strategic HRD alignment process within companies (see Wognum & Lam, 2000).

Organization and HRD Related Factors

For exploring the impact of organization and HRD related factors, the variables size and structure of the company, degree of innovation of the company, structure and position of the HRD department, degree of innovation of the HRD department, design of HRD programs, conditions made for the transfer of learning results, and company HRD climate are separately brought into Model 2 (see Wognum, 2000). The variable economic sector only served as a selection criteria. It was not brought into the analysis since no significant effect on perceived HRD effectiveness was found concerning this characteristic (Wognum, 1999). For the factors size and structure of the organization, structure of the HRD function, and transfer conditions, no differences in perceived HRD effectiveness were observed. A link was found, however, between the following organization and HRD related factors and perceived HRD effectiveness.

Problem that Served as Starting Point for HRD. In interaction with the type of HRD program (automation or social skills) the analysis proved that the problem that served as starting point for HRD has a positive effect on perceived HRD effectiveness. If the actual performance of employees, departments or the entire company is starting point for HRD interventions, then the impact on perceived HRD effectiveness was significant lower for social skills programs then for automation programs. It was found that the problem that served as starting point for HRD has no significant effect on perceived HRD effectiveness in itself.

HRD Climate and Position of the HRD Department. The analysis showed that HRD climate correlates negatively with HRD effectiveness. No interaction effects were found between HRD climate and type of HRD program, indicating that the effect of HRD climate on perceived effectiveness is negative, regardless whether it concerns automation or social skills programs. The same applies to the position of the HRD department when this is not placed in the management line, but is part of a staff department, for instance, the company's personnel department. The effect on perceived HRD effectiveness is significant lower where the HRD department is part of a staff department, than when it has 'other position than a staff department', which is significant. No interaction effect between 'position of the HRD department' and 'type of HRD program' were found, implying that the perceived HRD effectiveness score in companies with an HRD department as part of a staff department is significantly lower than in companies with an HRD department positioned as other than a staff department, no matter if it concerns automation or social skills programs.

The Form the HRD Program Takes. More than 56% of the 44 HRD programs studied were tailor-made, 25% were standard, while about 18% had another form, usually an adaptation of a standard program to a specific company situation. The form of the HRD program correlates negatively with perceived HRD effectiveness. When compared to standard and other kind of 'off-the-shelf' programs, tailor-made programs result in a significant lower level of effectiveness. No significant effects were found when interacting the variable 'form of HRD program' with the variable 'type of HRD program'. This means that the perceived effectiveness of tailor-made programs are less than other program forms, irrespective of whether they are geared to automation or social skills.

Conclusion

Based on the results it may be concluded that many factors have an impact on HRD performance or effectiveness. One of the findings showed that strategic HRD alignment is positively correlated with HRD effectiveness. This may lead to the conclusion that the strategic HRD alignment process is an important intermediate factor in enhancing (or impeding) the impact of HRD on company performances. Contextual elements, like HRD climate, position of the HRD function and the form of the HRD program, are important effectiveness influencing factors. although some unexpected results were found. This may partially due to the fact that the data were based on perceptions of one respondent group, HRD company representatives. Their perceptions may be different from those of other groups of stakeholders. In future research these contextual factors should be measured not only among HRD representatives but also among other stakeholders in organizations in order to investigate the influence of these factors on HRD effectiveness.

Based on the findings it is now possible to start the building of an HRD performance or effectiveness model, and visualize the connection between all elements. This can be done in several ways (see for instance Holton, 1996). In this study the choice is made for an HRD effectiveness model derived from the integrated, multilevel model of school effectiveness (Scheerens & Bosker, 1997). Following this model and based on the information in the former sections, there are two main characteristics of the HRD effectiveness model. Firstly, according to a basic systems model of an organizationally and contextually embedded production process, the antecedent conditions are classified in terms of inputs, processes and contexts of HRD. Secondly, the model has a multilevel structure, where the HRD function is embedded in organizations (strategic HRD alignment as an organization process), and individual employees who want to develop themselves are embedded in the HRD function (HRD process).

These characteristics are visualized in Figure 2, together with the empirically found indications for certain relations in this model, as was presented in this paper. The findings give some insights into ways to improve the effectiveness of HRD programs and other learning interventions

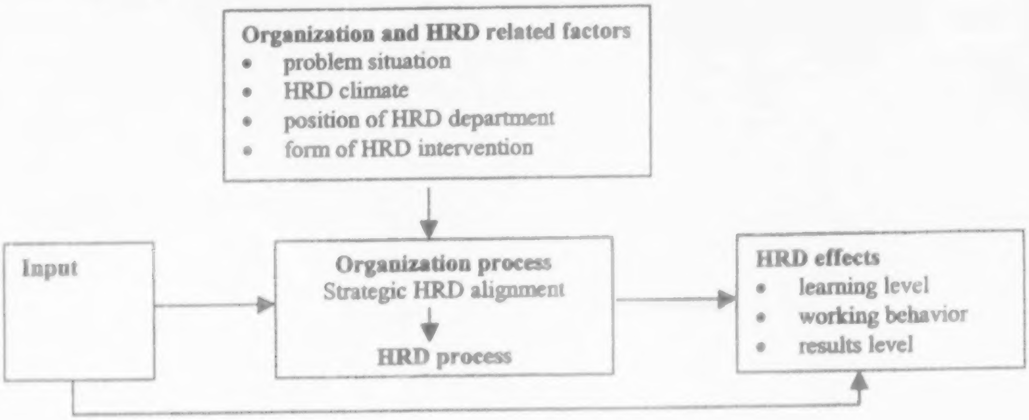

Figure 2. A model of HRD Effectiveness

Much more research, however, is needed to discover other predictors of HRD effectiveness so that the effectiveness model can then be fleshed out and provide us with an adequate explanation for the effectiveness of company HRD programs. It is, among others, important to find input characteristics which are important for enhancing HRD effectiveness. Van der Klink (1999), for instance, found that transfer of training is largely explained by characteristics of participants, i.e. the level of self-confidence and behavior after training. Hoekstra (1999) also found that enhanced employees' feelings of self-efficacy play a central role in training effectiveness. However, feelings of self-efficacy concerning a specific kind of behavior only influence the performing of that behavior under certain environmental conditions. The transfer of learned behavior proved to be a function of characteristics of the environment in which the trainees needed to work, like for instance practical support (Hoekstra, 1999). Van der Klink's study, on the contrary, indicated workplace characteristics like manager support or pressure of work, of virtually having no influence on the transfer of training (Van der Klink, 1999). Other findings underpin the importance of further investigating the mutual relationships between intermediate factors in the model and with HRD effectiveness. Holton and Kaiser (2000), for example, found evidence for the impact of some organizational learning characteristics on perceived innovation, which in turn, they expect, will improve performance.

Due to the recent trend for less traditional and more informal HRD interventions than the ones mentioned in this survey, research is needed into the way the alignment process can be approached in more informal and on-the-job training and learning situations. Further research also needs to focus on alignment processes and other effectiveness enhancing factors in small and medium sized companies (SMEs). Like the study presented here, HRD research has traditionally focused on large organizations despite the prevelance of small business in todays economy.

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Exploring Organization Commitment in a Non-Profit Service Organization

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The primary purpose of this study was to identify the key predictors of employee commitment in a service non-profit organization. Company satisfaction, the extent to which one's job takes advantages of talents and abilities, and the extent to which the organization emphasizes doing things right the first time were found to be the strongest predictors. A work environment conducive to learning was also found to be highly associated with employee commitment.

Keywords: Organization commitment, Organizational performance, Learning Environment

Today, times are changing and are changing fast. The only thing that remains constant in organizational life is change. Clearly, lifetime employment is dead. Careers are becoming portfolios of activities and people increasingly have multiple careers. Companies are becoming more and more flexible and self-designing. They understand that organizational competitiveness will ultimately depend on their capability to configure people and design a system for optimal execution of strategy (Mohrman & Lawler III, 1998). "As a result, the future effectiveness of most organizations increasingly depends on the very human resources who feel that the company is no longer committed to them and who do not know what the future holds. Herein lies the rationale for the complete and total transformation of the human resources function" (Mohrman & Lawler III, 1998, p. 211).

In the old days, loyalty and commitment was a two-way phenomenon that was reinforced by a psychological contract that existed between the organization and the employee. Briefly, not long ago employees joined an organization with the expectation of a career. That is, aside from permanent employment, employees expected the company to give them the opportunity to grow, develop, and advance hierarchically. Further, employees expected their wages to increase with time, experience, and performance. They expected a fair wage for the work they did and they did not expect their salaries to be at risk. Employees also saw the company, not themselves, as responsible for providing opportunities for growth, development, and careers. In return, they rewarded the organization with loyalty and did what the company needed to have done in order to be competitive (Mohrman & Lawler III, 1998).

Times have changed though. "The latest rash of downsizing, restructuring, outsourcing, and hollowing has put an end to the old psychological contract, and new contracts are emerging in reaction to the new situation… We appear to be entering an era of highly differentiated psychological contracts" (Mohrman & Lawler III, 1998, p. 219). The new contracts, which are established with different groups of employees—core workers, contract workers, and temporary and part-time workers—will have to acknowledge the needs and motivations of each particular group of employees (Mohrman & Lawler III, 1998).

According to Finegold (1998), the new psychological contract can take the form of a learning contract. As Finegold (1998) put it, "one possible basis for an alternative bargain between the employer and employee is a mutual commitment to ongoing competency development, or a learning contract. The organization, although not able to offer employment security, pledges to increase the employability of its workers and managers by investing in their continuous skill development and providing them with opportunities (including lateral career paths) and rewards for using these skills" (p. 234). Under this learning contract, if the organization's focus changes and thus the competencies of a particular employee are no longer needed, then the organization should help that person retrain for new opportunities either in the organization or outside it (Finegold, 1998). According to Mohrman and Lawler (1998), however, "if the new contracts do not give employees a stake in the performance of the organization, the organization is unlikely to obtain anything like the depth of commitment found in the old era of two-way loyalty" (p. 220).

In terms of previous research, employee commitment has been one of the most popular organizational research subjects during the last three decades (Benkhoff, 1997; Eby, Freeman, Rush, & Lance, 1999; Zeffane, 1994). The main reason why employee commitment has experienced such widespread popularity is its assumed

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impact on performance (Benkhoff, 1997). In particular, researchers have argued that the importance of the organization commitment construct stems from its relationship with such important work-related constructs as absenteeism, turnover, organizational citizenship, job satisfaction, job involvement, job performance, and leader subordinate relations (Eby et al., 1999; Finegan, 2000; Organ & Ryan, 1995). A study by Benkhoff (1997) found employee commitment to be significantly related to the financial success of bank branches. Further, another study that was conducted in a hospital environment concluded that that there is a "definite relationship" between employee attitude and satisfaction with organizational success (Bolon, 1997). Aside from organizational performance, however, organizational commitment has been found to be associated with training effectiveness. More specifically, studies have found the organizational commitment construct to be significantly and positively related to motivation to learn (Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995; Tannenbaum, Mathie, Salas, & Cannon-Bowers, 1991).

With regard to factors affecting organizational commitment itself, studies have found job satisfaction, extrinsic rewards, intrinsic rewards, job characteristics, upward and downward communication, leadership satisfaction, promotion satisfaction, trust in supervisors, age of the organization, and employee perceptions of organizational values to be predictors of commitment (Bolon, 1997; Finegan, 2000; Glisson & Durick 1988; Nyhan, 1999; Young, Worchel, & Woehr, 1998). In addition, a study in the health care industry found that employees who felt their employers were focused on change and new technology exhibited high organizational commitment (McNeese-Smith, 1996).

Another major factor affecting organizational commitment, of course, is downsizing. As stated earlier, due to external competitiveness related pressures, today's organizations find themselves in the constant mode of downsizing or realigning their internal structures in order to control costs and at the same time place more emphasis on the quality of their products. Results of a recent survey, for instance, indicate that 38% of the health care industry is reducing the size of its workforce in order to control operating costs (Bolon, 1997). According to Bolon (1997), it is the hospital's remaining employees that typically carry the burden of staff reductions because they must absorb or fulfill numerous responsibilities that previously were performed by their coworkers. Finally, Bolon (1997) acknowledged the high correlation between job satisfaction and organizational commitment. Bolon's finding is in agreement with that of the Luthans and Sommer (1999) study which found downsizing to result in a shift in traditional organizational level attitudes, including commitment and satisfaction.

Research Problem

Despite the vast amount of research on employee commitment, "the results are disappointing. So far there is no evidence of a systematic relationship between commitment and its presumed consequences—turnover and job performance—even though these links are almost implied by the definition of the concept. Nor do we know very much about the factors that explain the phenomenon" (Benkhoff, 1997, p. 114). An explanation of this phenomenon could be that "factors affecting employee satisfaction and commitment to the organization are not only complex but they are all somewhat intertwined with each other" (McNeese-Smith 1996, p. 160). As Eby et al. (1999) put it, "few studies have tested complex patterns of relationships among antecedents, correlates and consequences of commitment, or tested theoretically based alternative models of affective commitment" (p. 463). Eby et al. (1999) further stated that based on the limited attention given to model building and testing, future research should focus on delineating the motivational and psychological processes that may influence the complex relationships among focal variables.

Given the gaps pertaining to organization commitment research, the central focus of this *exploratory* study was a) to identify the key variables within the organizational context that could serve as predictors of employee commitment in a service non-profit organization; and b) describe the relationship of these key variables with organization commitment. Given also the lack of systematic evidence with regard to the relationship between commitment and its presumed consequences, this study attempted to enhance knowledge in this domain by describing the relationship between employee commitment and absenteeism, turnover, as well as bottom-line organization performance. Lastly, this study attempted to describe the relationship between learning and employee commitment and thus determine the extent to which a learning contract could indeed serve as a viable alternative to the old employment based psychological contract.

Theoretical Framework

The theoretical framework of this study was based on the organization commitment, sociotechnical systems (STS), and quality management theories. Based on the above described theories and research a survey instrument was developed which in turn helped assess all relevant variables and constructs pertaining to employee commitment and the extent to which the organization was functioning as a *high performance work system*. In short, high-performance work systems (HPWS), which are also known as "high-involvement" or "high-commitment" organizations, are multifaceted and embody different combinations of STS, continuous improvement, and other organization development strategies (DeSimone & Harris, 1998; French & Bell, 1999). High performance work systems have also been defined as "excellent human systems" or systems that perform at unusually high levels of excellence (Harvey & Brown, 2001).

Typically, high-performance work systems "feature decision making moved downward as far as possible, extensive use of self-managed teams, compensation systems that link rewards to individual and team performance, widely shared information, participative and shared leadership, and extensive training" (French & Bell, 1999, p. 234). According to Gephart (1995), HPWS are organized around eight core principles: 1) they are aligned to an organizations competitive strategy; 2) clear goals and outcomes are customer driven; individual, team, and organizational goals and outcomes are aligned; 3) work is organized around processes that create products and services; 4) they include process-oriented tracking and management of results; 5) organization is by work of units that are linked to processes-which enhance ownership, problem solving, and learning; 6) workplace structures and systems facilitate focus, accountability, cycle time, and responsiveness; 7) they are characterized by collaboration, trust, and mutual support; and 8) strategic change management is key.

Briefly, the STS dimensions of the instrument helped determine the extent to which the employees functioned in a participative and innovation driven system whose design was consistent with STS principles. According to Pasmore (1988), STS designed organizations "have been demonstrated to produce high levels of commitment and performance" (p. 157). The quality management dimensions of the instrument helped determine the extent to which the organization functioned as an excellence and quality driven system with great emphasis on continuous improvement. Finally, based on the results of previous empirical research, questionnaire items were developed to assess the extent to which the employee functioned in an environment that was conducive to organizational commitment.

In all, this study incorporated in its design the following learning and organizational dimensions: organization commitment; job satisfaction; learning climate; management practices; employee involvement; organizational structure; communication systems; reward systems; job design; job motivation; innovation practices; technology management; teamwork climate; ethical work culture; and process improvement climate. Organizational performance was defined in terms of the following dimensions: quality, productivity, competitiveness, innovation, rate of change adaptation, and rate of new technology adaptation.

Research Questions

In short, this study attempted to answer the following research questions:

1. Which of the identified organizational and learning climate dimensions and variables can serve as predictors of organizational commitment?
2. To what extent is organizational commitment related to organizational performance?
3. To what extent is organizational commitment related to the learning environment ?

Methodology

Instrument

The instrument of this study consisted of a 108 Likert item questionnaire, which was designed to assess the organization in terms of the earlier described dimensions. Many of the dimensions were assessed with scales that were used or described in previous instruments or research (Buckingham & Curt; 1999; Hackman & Oldham, 1980; Lindsay & Petrick, 1997; Macy & Izumi, 1993; Pasmore, 1988; Rouiller & Goldstein, 1993; Tracey, Tannenbaum, & Kavanagh, 1995; Whitney & Pavett, 1998), while several were designed specifically for this study. The instrument utilized a six-point scale that ranged from "strongly disagree" to "strongly agree". The first version of the questionnaire, which consisted of 99 Likert items, was originally pilot-tested on a group of 15 participants for clarity. Furthermore, a group of seven experts reviewed the instrument for content validity. Upon revision, the instrument was then administered to a group of 129 members of four different organizations. Reliability tests were conducted and the instrument was further refined and expanded. As stated earlier, in its final format the instrument consisted of 108 Likert items.

Subjects

The sampling frame of this study consisted of 256 employees of a national non-profit organization in the health care insurance industry. The employees were given the survey instrument at scheduled staff meetings. 192 out of the 256 employees returned the survey and the response rate was calculated at 75%. In all, 86.4% of the respondents were females and 13.6% males. In terms of education, 14% had a high school degree, 27.9% an associates, 39.5% a bachelors, 13.4% a masters, and 3.5% a PhD. 1.7% of the respondents did not indicate an educational level. In terms of position held in the organization, the frequency distribution identified 4.1% of the respondents as either a vice president or director of the unit, 4.1% as managers, 11.6% as supervisors, 65.7% as salaried professional, 12.8% as administrative personnel, and 1.7% as hourly employees.

Data Analysis

Based on the gathered data, a regression analysis was used to answer the first research question. More specifically, through a stepwise regression analysis the most significant predictors for the organizational commitment variable were identified. Correlational analyses were used to answer research questions 2 and 3 and thus determine the extent to which organizational commitment is associated with organizational performance and continuous learning opportunities. The reliability of the instrument was measured in terms of coefficient alpha and was found to be 0.986.

Results and Findings

As shown in Table 1, the stepwise regression model of organization commitment incorporated in its design 15 variables and accounted for 62.3% of the total variance. Being satisfied with the company as a place to work proved to be the stronger predictor and accounted for almost 37% of the total variance. The second strongest predictor of organization commitment was the extent to which the job takes advantage of one's skills and abilities. The extent to which the organization emphasizes doing things right the first time was the third variable selected by the model.

According to the results depicted in Table 1, organization commitment was also found to be dependent on the extent to which: the employee functions in an environment that has few bureaucratic barriers to getting the job done properly; people on one step of the operation regard the people in the next step of the operation as their customers and try to meet their needs; one is expected to use newly learned skills and knowledge learned during training, receives praise and recognition when doing so, and he or she is well rewarded for his or her learning; innovators get ahead in the organization; there is an organization focus on process improvement; the employee is a member of a self-directed work team, is given the opportunity to do what he or she does best and has a job that requires skill variety; and, the amount of output by peers exceeds expectations and is delivered in a timely fashion.

Examining the data in Table 2, one notices that organization commitment was found to exhibit its highest correlations with company ($\underline{r}$ =0.61; $p < 0.001$) and job satisfaction ($\underline{r}$ = 0.575; $p < 0.001$). This finding is not surprising given that unless one is satisfied with his place of employment as well as his or her job he or she will not be likely to be committed to the company. Examining further the data in Table 2, one can observe that although organization commitment was found to be significantly and positively correlated with a variety of performance indicators, as expected it was found to be negatively related with turnover and absenteeism. In particular, organization commitment was found to be significantly related with the quality indicators of quick product/service introduction, customer loyalty, on-time delivery of products and services, and external customer satisfaction. Moreover, organization commitment exhibited a significant and positive correlation with the productivity indicator of cost effectiveness as well with the variables that pertained to the rate of change adaptation and new technology assimilation. Lastly, it is important to note that of all the performance indicators listed in Table 2, those pertaining to competitive and innovative organization were the ones found to exhibit the highest correlation with organization commitment. What this finding seems to suggest is that when it comes to attaining competitive advantage and being innovative, organizations still need to heavily rely on a committed workforce.

In terms of the association between learning and organization commitment, all the learning environment variables investigated in this study were found to be moderately to highly associated with organization commitment. To be specific, the data in Table 2 indicates that organization commitment will be enhanced if the employee functions in an organization for which continuous learning is a priority ($\underline{r}$ = 0.400; $p < 0.001$), he or she is given ample of learning and growth opportunities ($\underline{r}$ =0.540; $p < 0.001$), and is rewarded for his or her learning ($\underline{r}$ =0.558; $p < 0.001$). Further, the high correlation between organization commitment and motivation to learn during training

($\underline{r}$ =0.558; $p < 0.001$) exemplifies and once again validates the relationship between organization commitment and training effectiveness.

Table 1. Stepwise Regression of Organization Commitment[a,b,c]

	Variables					
Model	Entered	Removed	$\underline{R}$	$\underline{R}^2$	Adjusted $\underline{R}^2$	Std. Error of the Estimate
1	I am satisfied with this company as a place to work		.610	.372	.369	0.98
2	Job takes advantage of talents and abilities	.	.662	.438	.431	0.93
3	Emphasis of doing things right the first time	.	.701	.492	.483	0.89
4	Few bureaucratic barriers	.	.715	.512	.500	0.87
5	People meet the needs of their coworkers	.	.736	.542	.528	0.85
6	Expected to use new skills and knowledge	.	.746	.557	.541	0.83
7	Receive praise and recognition when applying newly learned skills and knowledge	.	.755	.570	.552	0.83
8	Learning is well rewarded	.	.763	.582	.562	0.82
9	Innovators get ahead	.	.770	.593	.571	0.81
10	Organization focus on process improvement	.	.777	.603	.579	0.80
11	Member of self-directed	.	.783	.613	.587	0.79
12	Amount of work output by peers exceeds expectations	.	.791	.626	.599	0.78
13	I have the opportunity to do what I do best	.	.798	.637	.608	0.77
14	I receive peer output in a timely fashion	.	.804	.647	.616	0.76
15	My job requires skill variety	.	.809	.655	.623	0.76

[a] Dependent Variable: Organization commitment; $\underline{N} = 176$

[b] Method: Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

[c] $F = 20.38$, $p < 0.001$

Summary and Conclusions

In summary, the results of this study confirmed some of the earlier research findings while at the same time provided some new insights with the regard to the relationship between organization commitment and organizational performance as well as learning. In particular, this study confirmed the strong association between commitment and job as well as company satisfaction and thus validated the results of the Eby et al. (1999), Bolon (1997), Organ and Ryan (1995), and Young et al. (1998) studies. Moreover, being in agreement with the results of the studies by Bennkhoff (1997), Bolon (1997), and Eby et. al (1999), this study once again ascertained the link between employee commitment and organizational performance as well as turnover and absenteeism. The results of this study were also in agreement with the Tannenbaum et al. (1991) and Facteau et al. (1995) studies which found organization commitment to be highly correlated with motivation to learn.

Table 2. Pearson Correlations of Organization Commitment with Learning Environment Variables and Organizational Performance Indicators

Variable	Organization Commitment
Learning Environment Variables	
Motivation to learn during training	r = .558** (N = 189)
Learning is well rewarded	r = .543** (N = 189)
Learning and growth opportunities	r = .540** (N = 187)
Continuous learning is a priority	r = .400** (N = 191)
Organizational Performance Indicators	
Competitive organization	r = .494** (N = 187)
Innovative organization	r = .441** (N = 186)
Cost effective production	r = .381** (N = 186)
Quick product/service introduction	r = .356** (N = 188)
Customer loyalty	r = .352** (N = 185)
On-time delivery of products and services	r = .326** (N = 187)
External customer satisfaction with quality of services	r = .314** (N = 185)
Rate of new technology assimilation	r = .302** (N = 185)
Rate of change adaptation	r = .300** (N = 186)
Absenteeism, Turnover, Job & Company Satisfaction	
Satisfied with this company as a place to work	r = .610** (N = 184)
Job satisfaction	r = .575** (N = 185)
Turnover	r = - .316** (N = 187)
Absenteeism	r = - .271** (N = 185)

**. Pearson correlation is significant at the 0.01 level (2-tailed)

However, the findings of this study also demonstrated the importance of learning and how an organization can use it when wishing to build a committed, innovative, and competitive workforce. As stated earlier, all learning environment variables investigated in this study were found to be moderately to highly correlated with organization commitment. In essence, the findings of this study gave empirical validation to the premise of how a learning contract can indeed replace the old psychological contract, which in turn centered on the concept of employment security. In this modern era in which employees act more and more like free agents, while organizations are in a constant flux of downsizing and restructuring, learning not only can assist in the development of a highly trained, knowledgeable, and competent workforce, it can also facilitate employee commitment and thus serve as a tool of competitive advantage.

Contribution to New Knowledge in HRD

As stated earlier, the main objective of this study was to identify the key variables within the organizational context that could serve as predictors of employee commitment in a service non-profit organization. A secondary objective of this exploratory study was to describe the relationship between employee commitment and absenteeism, turnover, as well as bottom-line organization performance. Lastly, given the recent calls with regard to replacing the old psychological contract with a new learning contract, a final objective of this study was to describe the association between learning and employee commitment and thus determine the extent to which such a learning contract could serve as a viable alternative to the old psychological contract. In short, this study has accomplished its objectives and aside from demonstrating practical significance it also made some important contributions to HRD theory. It has demonstrated that in today's turbulent and downsizing times, during which training becomes an expensive commodity, through learning HRD can still become a focal point to organizational effectiveness and success.

In terms of future research, the main limitation of this study was that its data was gathered from a single source and was conducted in a non-profit service organization. Replicating this study in other industries and environments will help determine the extent to which the presented results can be generalized to other settings.

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Innovative Human Resource Practices and Organizational Commitment: An Empirical Investigation

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The present study attempted to explore the relationship of three dimensions of Innovative Human Resource Practices with Organizational Commitment. Regression analyses showed that the perceived extent of introduction of innovative human resource practices by the organizations was the most significant predictor of Organizational Commitment.

Keywords: Organizational Commitment, HR Effectiveness, Innovative Practices

Available literature suggests that business environment changes have brought about profound changes in the management of Human Resources (Stroh and Caliguiri, 1998). Prevailing universal assumption also maintains that there are always human resource activities that are better than others and therefore, organizations should adopt new and Innovative human resource activities (Ulrich, 1997; Harel and Tzafrir, 1999). However, very little research had addressed *innovation* within the Human Resource Management (HRM) function (Wolfe, 1995). In both, the theoretical literature and the emerging conventional wisdom, there is a growing consensus that organizational Human Resource (HR) practices must ultimately contribute to the firm's bottomline. Though research focussing on the firm-level impact of HR practices has become popular in recent years (Delaney and Huselid, 1996), several problems with this type of research have been pointed out (Hiltrop, 1996).

Theoretical evidence on the relationship of HR practices with organizational effectiveness indicates that HR practices influence employee commitment and other HR performance measures, which, then lead to organizational effectiveness (Rao, 1990; Phillips, 1996; Yeung and Berman, 1997). Therefore, it is important to elaborate on the black box (employee attitudes, behaviours, and perceptions) between a firm's HR system and the firm's bottomline. However, empirical research on the relationship of Innovative Human Resource Practices (IHRPs) with employee attitudes was still sparse.

The purpose of this study was to empirically address the relationship of three dimensions of IHRPs, that is, Importance, Introduction and, Satisfaction, with Organizational Commitment (OC). Innovative Human Resource Practices (IHRPs), in the present study, refers to: a modification in the existing or established HR practices of the organization, which is both, new to the organization as well as improved, even if the modification is by way of adopting or adapting the HR practices of other organizations.

Theoretical Framework

In the era of globalization, technological and information revolution and heightened competition, concern for the human resource of the organization has increased tremendously. The development and implementation of new and improved HR practices may lead an organization to respond proactively to external change. Tannenbaum and Dupuree-Bruno (1994) proposed that the external environment had a very strong relationship with HR Innovations. The HRM function and practices cannot remain static as firms make the adaptations necessary to remain competitive. Effective HRM can no longer be content with simply executing a standard set of practices. There is a need to constantly evolve new mechanisms so as to attain a competitive edge.

The term innovation has been used to refer to two related concepts. Some researchers have used the term to refer to the process of bringing new products, equipment, programmes, or systems into use (Damanpour, 1991) while others have used it to refer to the object of the innovation process, that is, the new product, equipment, programme, or system (Rogers, 1983). The latter use of the term is adopted in the present research, following Wolfe (1995) who defined Innovative HR practices as an idea, programme, practice, or system which is related to the HR function and is new to the adopting organization.. Use of the term innovation has also differed concerning whether "objective newness" is considered an important criterion of innovation. While some researchers consider objective newness to be an important criterion, others consider an innovation to be a product, programme, or system which is

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new to the adopting organization (for e.g., Damanpour, 1991) arguing whether an idea is objectively new matters little so far as human behaviour is concerned (Rogers, 1983). The present research adopts the latter position.

The adoption of innovative/ progressive HR practices can be considered similar to the adoption of other administrative innovations. Evan (1966) and Knight (1967) were the first to differentiate between technical innovations and administrative innovations. Technical innovations refer to an idea for a new product or service, or change in production processes. Administrative innovations are the organizational or people innovations. Progressive/ Innovative HR practices are considered similar to administrative innovations, as they occur within the social system of the organization and are designed to improve organizational effectiveness by influencing employee attitudes and behaviours (Johns, 1993).

According to Kochanski and Ruse (1996), the HR function has been under pressure to reduce costs, to improve its services, to increase its impact and to provide a more satisfying work experience for its own employees, even as the proven ways of organizing the people prove insufficient to meet the new challenges facing human resources. Yeung and Berman (1997) found that the measurement of HR effectiveness and impact was the number one topic that HR executives were most interested in exploring. But, most HR evaluation approaches have been unable to deliver objective data showing the unique contribution of the HR function to organizational effectiveness (Phillips, 1992).

There is mounting empirical evidence linking HR practices with various measures of firm performance (Huselid et al, 1997; Venkataratnam, 1997; Parmenter, 1998). However, literature on the relationship of *Innovative* Human Resource Practices and organizational performance still remains sparse.

Given the importance of the HRM function to organizational competitiveness, successful HRM Innovations can be important determinants of organizational success. Earliest study on IHRPs was done by Schuster (1986) who reported that greater the number of Innovative practices, more people-oriented the management philosophy and, more effective the organization. Other studies have also reported relationship between progressive/sophisticated HR practices and various measures of firm performance (Hiltrop 1996; Stroh and Caliguiri, 1998; Varma et al, 1999; Hiltrop, 1999).

According to Hiltrop (1996) , these results do not prove that innovative or progressive HR practices *cause* better financial performance but only that the two may be related. Huselid (1994) put forth that the relationship between HR practices and firm performance does not make it clear whether sophisticated HR practices caused the higher performance or if higher performing organizations chose to invest in more sophisticated HRM practices. However, the evidence according to Hiltrop (1996) is consistent with the view that the HR practices of an organization have a powerful influence in motivating employees to exhibit the kinds of attitudes and behaviour that are needed to support and implement the competitive strategy of an organization.

Therefore, it is important to demonstrate that HR practices and innovations therein, impact competitive advantage by causing certain employee attitudes, behaviours and perceptions that, in turn, create competitive advantage for the firm. Hiltrop and Despres (1994) proposed that HR had a positive impact on OC and viewed OC as one of the six performance criteria of HR practices. Consistent, though indirect evidence for the linkage between organizational practices such as reward systems, performance-management systems, family-responsive HR practices etc., and commitment was suggested by certain studies. McElroy et al (1995) concluded that progressive HR practices enhanced OC. *Theoretical literature* suggests that employee commitment leads to improved individual and organizational performance. However research evidence on the relationship of IHRPs with employee attitudes is still very limited. Assertions in the literature review point out that it was not practices per se, but employee perception of fairness of practices that affected OC (DeConinck and Stilwell, 1996).

Therefore, the present study focussed upon the perception of three dimensions of IHRPs, that is, the extent of Introduction of IHRPs, their Importance for organizational goal achievement and, Satisfaction with implementation of IHRPs.

Method

A dynamic business environment and growing expectations and aspirations of the workforce require that organizations modify their HR Practices on an ongoing basis in order to foster employee commitment which may be manifested in the form of improved performance for the organization and also, improved well-being and development of the employees.

The primary purpose of the present field study was to explore the relationship of perception of IHRPs with OC, where OC was a human resource outcome measure. The study focussed on the perception of IHRPs along three dimensions;

a. extent to which HR Innovations are *important* for achieving the goals of the organization

b. extent to which HR Innovations have been *introduced* in the organization

c. extent of *satisfaction* with the implementation of HR innovations in the organization

Tentative hypothesis formulated for the study stated that there will be a significant relationship between one or more dimensions of employee perception of IHRPs, that is, the Importance, Introduction and extent of Satisfaction with IHRPs with OC.

The study was carried out across seven organizations. These seven organizations were selected on the basis of experts' opinion survey. All the seven organizations included in the present study were identified by at least 50% of the experts interviewed as having a reputation of being Innovative in their HR practices. The IHRPs questionnaire and Organizational Commitment questionnaire were personally administered to the executives and managers of each of these seven organizations.

Questionnaires Used

Perception Of Innovative HR Practices Questionnaire. This questionnaire was designed by the researcher to assess employee perception of the Innovative HR Practices of the selected organizations, along the following three dimensions:

i) extent to which managers believed that Innovative HR Practices were *Important* for achieving the goals of the organization.

ii) extent to which employees believed that Innovative HR practices had been *Introduced* in the organization.

iii) extent to which the managers were *Satisfied* with the implementation of Innovative HR Practices in the organization.

Fourteen HR systems were focused upon in the present research. The selection of these 14 HR systems was made on the basis of the preliminary investigation. Each HR practice was labeled as 'HR Practice Category'. The final version of the scale consisted of three parts, with 14 items in each part- total number of items being 32. The 14 items in each part, that is, Part A, B and C, referred to 14 broad HR practice categories, with each HR practice category being a cluster incorporating a number of innovative techniques. These techniques were given as examples for each respective category. These examples were generated by the panel of experts interviewed in Phase I of the study. Tannenbaum and DupureeBruno (1994), in their study of Innovative HR Practices had followed the same method for generating a list of innovative/ progressive HR practices.

Each part of the questionnaire used a 4 -point rating scale with, 1 indicating a poor perception and, 4 indicating a good perception for each dimension of Innovative HR practice. The range of scores possible for each part (dimension) of the scale was 14 to 56. The 14 HR practice categories were:

1. Employee acquisition strategies.
2. Employee retention strategies.
3. Compensation and Incentives.
4. Benefits and Services.
5. Rewards and Recognition.
6. Technical Training.
7. Management Development.
8. Career Planning and Development Practices.
9. Performance Appraisals.
10. Potential Development.
11. Succession Planning.
12. Employee relations with a human face.
13. Employee exit and separation management.
14. Adopting responsibility for socially relevant issues.

In order to determine the reliability of this questionnaire, it was administered to 80 executives, 40 each from public and the private sector organizations. The split-half reliability for Part A (Introduction), Part B (Importance), and Part C (Satisfaction) was found to be 0.80, 0.85 and, 0.81 respectively.

Organizational Commitment Questionnaire. The Organizational Commitment Questionnaire was developed by Porter and Smith (1970). This Questionnaire consists of 15 items, six of which are negatively phrased, and hence, reverse scored. Reliability and validity evidence for the scale is highly positive. Coefficient alpha has been found to be consistently high in all the studies that have used the scale and, ranges from 0.82 to 0.93 with a median of 0.90. Additional evidence about internal reliability comes from several other studies wherein, the Kuder-

Richardson coefficient ranges from 0.84 to 0.91. The scale has been used extensively in research and has acceptable psychometric properties.

The reliability of the Questionnaire was re-established by the researcher. The Split-half reliability coefficient was found to be 0.89 using the Spearman-Brown formula. The range of scores possible on the scale was 15 to 75. High score on the questionnaire were indicative of a high commitment to the organization.

Sample: The questionnaires were administered to the executives and managers of the seven organizations that participated in the study. A total of 422 usable questionnaires were obtained from across the seven organizations. Largest number of respondents belonged to the middle management level (n= 288), were professionally qualified (n= 230) and, were between 25 and 35 years of age (n= 242).

Analysis: In order to identify the significant predictors of Organizational Commitment, Stepwise Multiple Regression Analysis was conducted.

Results

Demographics. The sample largely consisted of employees who had a degree in a professional course (54.50%). Majority of the sample was in the age group 25-35 years (57.35%), and at the middle management level in the organizational hierarchy (68.25%). Only 39 of the 422 respondents were at the senior managerial level. And only 2 each were at the top management level and above 55 years of age. The range of the tenure with present organization was between 4 months and 33 years. The mean of the tenure with present organization was 6.67 years. Total work experience ranged from 8 months to 33 years with an average of 9.21 years.

Descriptive Results. Table 1 shows the mean scores for each of the three dimensions of IHRPs and for Organizational Commitment. The mean values of the variables indicated that the respondents of the seven organizations believed that Innovations in HR practices were *important* for achieving the goals of these organizations to a moderately high extent (Mean = 46.44). However, the perception of the extent to which HR innovations had been *introduced* in these organizations (Mean = 36.18) and level of *satisfaction* with the implementation of IHRPs (Mean = 35.86) was lower. Mean score of 53.57 for OC indicated that commitment in these organizations was moderately high.

Table 1: Means and Standard Deviations of the Variables

Organizations		Dimensions of Innovative Human Resource Practices			Criteria Variable
		Introduction	Importance	Satisfaction	Organizational Commitment
TOTAL N=422	Mean	36.18	46.44	35.86	53.57
	SD	7.55	6.65	7.88	7.36

Results of Correlational Analysis. On the basis of the correlational analysis between predictor variables for all the organizations taken together (Table 2), it was found that none of the background variables included in the study, except qualifications, had a significant relationship with any of the three dimensions of Innovative HR Practices. However, it was observed that more qualified the employees were, lower was the extent to which they believed that HR Innovations had been Introduced by their organization. This group of employees was also less Satisfied with the implementation of HR Innovations. Qualifications were also significantly negatively correlated with OC (Table 2). Total work experience of the employees and the total number of jobs changed were found to be significantly positively correlated with organizational commitment, suggesting that more experienced employees demonstrated greater attachment with their organizations (r= .11, p=.05; Table 2)

Regression Analysis Results. Regression analysis results are presented in Table 3. For the organizations under study, three variables were found to be significant predictors of OC (Table 3: Step III; F= 44.50; p<.00). These variables were: extent of Introduction of IHRPs; extent to which IHRPs were Important for organizational goal achievement and, Total Work Experience of the employees. These variables had a positively significant correlation with OC. This suggests that higher the extent to which employees believed that innovations in HR practices were *important* for achieving the goals of their organizations and, higher the extent to which IHRPs had been *introduced* by their organizations in their opinion, higher was their identification with the organization. Moreover, employees who had more number of years of *work experience* were also likely to show more involvement and attachment with their present organization.

Table 2: Correlations of Background Variables With Three Dimensions of Innovative Human Resource Practices (IHRPs) and Organizational Commitment

Background Variables	Dimensions of IHRPs			Organizational Commitment
	Introduction	Importance	Satisfaction	
Age	-.07	-.03	-.01	.07
Qualifications	-.18***	-.08	-.15**	-.16***
Managerial Level	.01	-.08	.04	.06
Salary	-.07	.02	-.04	.02
Work Experience	-.07	-.02	-.03	.11*
Tenure	-.12	-.06	-.08	.05
Jobs Changed	.00	.07	.02	.10*

* $p< .05$ ** $p< .01$ *** $p< .001$

The values of Adjusted R^2 (Table 3: Step I; Adjusted $R^2 = .19$) indicate that the maximum amount of variance of OC was attributable to the Introduction dimension of IHRPs. Beta coefficient of .44 at Step I of the multiple regression analysis (Table 3) indicated that for one unit increase in the extent of introduction of IHRPs, mean value of OC of the employees was likely to increase significantly by .44 units. Hence, it may be inferred from the results that if the employees believed that their firm was introducing innovations and modifying the human resource practices (HRPs), they were likely to be more committed to their organization.

Table 3: Summary of Stepwise Multiple Regression Analysis of Organizational Commitment (OC) on Predictor Variables (N= 422)

Step No.	Predictor Variables Entered	r	p	Standardized Beta	t	Multiple R	Adjusted R^2	F	DF
I	Introduction of IHRPs	.44	.00	.44	10.03***	.44	.19	100.57***	1, 420
II	Importance of IHRPs	.24	.00	.18	4.00***	.47	.22	60.08***	2, 419
	Introduction of IHRPs	.44	.00	.41	9.39***				
III	Total Work Experience	.11	.03	.14	3.25***	.49	.24	44.50***	3, 418
	Introduction of IHRPs	.44	.00	.42	9.69***				
	Importance of IHRPs	.24	.00	.18	4.07***				

*** $P< .00$

The above findings are consistent with Meyer and Allen's (1991) observation that commitment develops as a result of different experiences in the organization and has different implications for on-the-job behaviour. Employees whose experiences within the organization were consistent with their expectations and satisfied their basic needs, would develop a stronger affective attachment to the organization than those whose experiences were less satisfying. Therefore, people-orientation of the organization increased employee commitment.

These results may also be discussed with reference to the *nature of exchange relationship* between the organization and the employees. Tsui et al (1997) asserted that in the context of an uncertain environment, employer may find it advantageous to leave some obligations unspecified and to treat the employment relationship as a combination of economic and social exchange rather than as a purely economic exchange. This approach is referred to as, *mutual investment employee-organization relationship approach*. This is a *balanced exchange* relationship because it involves some degree of open-ended and long-term investment in each other by both the employee and the employer.

When employees believe that their organization was introducing Human Resource Innovations (HRIs), they were likely to perceive these actions as investments that the organization was making in the employees. In return then, the employees were also likely to enhance their investment in the organization by increasing their levels of OC. Blau (1964) argued that social exchange engendered feelings of personal obligation, gratitude and, trust that pure economic exchange does not.

At Step II of the regression analysis, the Importance dimension of IHRPs entered the regression equation (Table 3). Along-with the Introduction dimension, the Importance dimension of IHRPs accounted for 22% of the variance in OC (Table 3: Step II; Adjusted R^2= .22). However, with the inclusion of the Importance dimension at Step II of the regression equation, the beta value for the Introduction dimension was reduced (Table 3; Step II; beta = .41), but it was still significant (Table 3; Step II; t = 9.39; p< .00). The decrease in the beta value of the introduction dimension may be due to multi- collinearity. There was a highly significant positive correlation between the Introduction and the Importance dimensions of IHRPs (r = .17; p< .001; Table 4).

Table 4: Intercorrelations of Three Dimensions of Innovative Human Resource Practices (IHRPs)

	Dimensions of IHRPs		
	Introduction	Importance	Satisfaction
Introduction	1.00	$.17^{***}$	$.85^{***}$
Importance		1.00	$.19^{***}$
Satisfaction			1.00

*** p< .001

The Importance dimension of IHRPs added 3% to the predictable variability of OC. The perception of *Importance* of HRIs for organizational goal achievement along with the extent of *Introduction* of IHRPs was an important factor for enhancing OC.

The proposition of Met Expectations suggested by Porter et al (1974) may provide explanation for these findings. Employees become attached to their companies when their prior expectations have been met. One of the factors contributing to employee expectations are the HR practices of the organization. Therefore, modifications in HR practices may be important contributors to the degree to which employee expectations have been met and, consequently to their attachment to the organization.

At Step III (Table 3), 24% of the variance in OC was due to the combined effects of three variables, that is, Introduction of IHRPs, Importance of IHRPs and, the total work experience of employees (Adjusted R^2 = .24). Total work experience had a significant positive correlation with OC (Table 3: Step III; r = .11; p< .03). This indicated that higher the work experience of the employees, higher would be their commitment to the organization. All the other predictor variables did not enter the regression equation indicating that though they may be correlated with OC, they were not significant in predicting the commitment of the employees.

Conclusions

Though the results should be viewed as preliminary they provide future researchers with some empirical evidence supporting a promising new perspective with which to study HR practices and their relationship with outcomes important for attaining business leadership.

Findings point towards the Introduction dimension as the most important predictor of Organizational Commitment. These findings were indicative of the importance of Introducing innovations in various HR practices by the organizations for enhancing employee attachment to the organization.

One limitation of the present study is that it focussed only on those organizations that had a reputation for being 'innovative' with respect to their HR practices. Organizations with a reputation for being 'traditional' in their HR practice orientation were not included as part of the study. A comparative study of these two groups of organizations may further enrich the findings. Moreover, Industry comparisons of Innovative Human Resource Practices as well as their relationships with HR performance measures may yield important insights. Future studies using moderators, such as Industry, size of the organization and ownership, are suggested to gain additional insights on this issue.

In spite of its limitations, the findings of the study indicate that a number of benefits can be gained through the use of IHRPs. The sample in the present study transcends industrial and sectoral analysis and thus provides a global picture. Hence, it contributes to the emerging empirical literature exploring the combined impact of IHRPs on employee attitudes. However, adopting a multidisciplinary approach will serve to produce research that is more relevant to practitioners.

Contribution to New HRD Knowledge

Since research generally takes shape from the experiences of the real world, it shoulders the responsibility to contribute to professional knowledge *while, at the same time* advance the frontiers of academic discipline. By empirically testing whether certain combinations of IHRPs are associated with higher commitment the present study adds to academic knowledge by providing empirical evidence pointing towards the significance of continuous renewal of HR practices. While literature abounds with theoretical assertions about the importance of modifying HR practices, research on this issue has yet to gain momentum.

Empirical evidence on the relationship of Innovative Human Resource Practices (IHRPs) with employee commitment is still very limited and focusses mainly on single HR practices. The present study makes a significant contribution since organizations simultaneously use many HR practices that may enhance attitudinal and operational outcomes. Moreover, the present study provides an understanding of the nature of IHRPs, whereas most existing research does not make a distinction between HR practices per se and Innovative HR practices. In the Indian context, evidence for relationship between good HR practices and employee attitudes and organizational effectiveness was largely anecdotal, coming from Industry case presentations (Rao, 1999).

Findings suggest that employees' commitment to the organization is a function of their perception of the people-orientedness of the organization. The perception that the organization was action-oriented with respect to the extent of *Introduction* of HR innovations is likely to enhance employee beliefs about the commitment of the management of their organization to the human resources of the organization. This, in turn, is likely to lead to higher identification with the values of their organization.

The study also points towards the need for strategic orientation of HR function. Though practitioners and academicians have for long asserted the importance of a strategic role for HR function, relatively little has been done on this aspect by way of research. The results of the present study suggest employee awareness of the importance of HR Innovations for the achievement of organizational goals. Thus, HR practitioners need to so align HR Innovations that they further organizational goal achievement.

Further, by demonstrating that certain combinations of IHRPs lead to specific employee attitudes, such as organizational commitment, the present study also may provide an explanation for the HR- firm performance link. The study suggests that employees of organizations that are innovative in their HR practices may show greater identification with their organization leading to better organizational performance, when compared to the employees of those organizations that are not innovative.

It is evident from the findings of the study that organizations would gain valuable benefits by way of innovations in their HR practices. However, each organization needs to consider the environment in which it is functioning as well as the needs of its workforce. The specific improvements that an organization makes in its HR practices thus, may serve the unique requirements of the organization and its employees.

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A Model for Linking Organizational Culture and Performance

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The Denison Organizational Culture Survey (DOCS) is a model to utilize as applied research. The premise of the DOCS is that people's behaviors are a reflection of the organizational culture in which they work. By measuring these behaviors we can define an organization's culture. The DOCS, therefore, serves as a diagnostic and planning tool that is comprehensive in its analysis, and assists in defining why an organization is or is not achieving its desired outcomes.

Keywords: Organizational Development, Culture, Systems

Session Description

This session focuses on the entrepreneurial DNA of successful organizations. How to do good work fast is imperative for successful organizations to compete in a global economy of the 21st Century. The entrepreneurial spirit that ignites innovation and the quick use of existing knowledge seems to be lacking in most organizations. This session focuses on a concept and researched model for the formation of active and integrative feedback loops that may catapult organizations into successfully realizing their strategic missions and visions.

The audience will be led by the facilitator in the direction of discovery and insight into the many challenges of organizational design and development, and conclude with a suggested model for framing organizational culture in such a way as to incorporate more successful change strategies.

Presenter

The facilitator for this innovative session is Cathy Bolton McCullough. Cathy is Management Training and Development Specialist with the Oklahoma Department of Career and Technology Education. In this position, she works with organizational consultants across the State of Oklahoma to provide them with cutting edge resources and information on organizational design and improvement mechanisms. Previously, she worked with Meridian Technology Center as Business Management Specialist for eight years. In this capacity, she consulted with individual entrepreneurs in building successful companies, and she consulted directly with larger organizations in the areas of human resources, strategic planning, and organizational development issues and strategies. Cathy is a seasoned facilitator who has worked with executive and supervisory groups one-on-one, as well as in the context of CEO networks. In addition, she has made numerous presentations on business development and management to such organizations as the Academy of Human Resource Development (1995), the Oklahoma Municipal League's Annual Conference (1995), Texas A & M's Regional Conference on Business (1994), and national conferences of the American Business Women's Association (1991, 1992). In addition, she has been an invited guest lecturer for graduate level classes at Oklahoma State University (1998), and panel chair for the annual conference of the Oklahoma Commission on the Status of Women (1999). She holds a bachelor's degree in psychology and a master's degree in Human Resource Development from Oklahoma State University. She is currently co-authoring (January 2001 publication date) an academic textbook entitled *Business Savvy for Today's NEW Entrepreneur*.

Purpose

The purpose of this presentation is to present a model and supportive research for turning the esoteric nature of culture into a tangible and applicable arena. According to Denison (1996), beliefs drive behaviors. In turn, behaviors drive results. Therefore, it is practical to approach culture via its most direct dimension: how people act.

Models for measuring culture have been abstract, difficult to apply, and extremely slow. Over fifteen years of research involving over 2,000 organizations has produced a model that companies can use to efficiently diagnose cultural strengths and weaknesses, create shared understanding of cultural and business implications for stakeholders

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at all levels, and implement specific, dynamic change pathways for achieving accelerated business results.

Goals

At the conclusion of this session, participants will be able to utilize the following: (1) A working knowledge of the link between business culture and key business performance indicators, including the culture factors behind mission (vision, strategic direction and intent, and goals and objectives), involvement (empowerment, team orientation, and capability development), adaptability (creating change, customer focus, and organizational learning), and consistency (values, agreement, and coordination and integration). (2) A hands-on understanding of the implications of an organization's specific culture profile. The participants will gain clarity on the concept of organizational culture, from data to patterns. In addition, the participants will see the relationship between the culture/business performance paradox and the balancing complexities. A discussion of implications for business leaders, consultants, and academicians will also broaden the scope and objectives for this session. (3) The participants will understand the pathways for accelerated change in high performing organizations through targeted culture change strategies, based on the model presented. Specifically, the model will prepare human resource specialists to turn data into dynamics for change, to see the connection between leveraging culture strengths and addressing culture weaknesses for accelerating change, and to embrace the culture/performance paradox.

Content of Session

Historically, it appears that individuals have been enthralled with the concept of business culture (Clark, 1972; Deal & Kennedy, 1982; Ouchi, 1981; Pettigrew, 1973; Sathe, 1983, 1985; Schein, 1985, 1989, 1990); however, academia has yet to deliver a clear picture of what constitutes culture and/or the impact of cultural components on business performance. In fact, there have been hundreds of definitions of culture which all proved interesting, but proved of no value to the everyday business manager or CEO.

This session focuses on the Denison Organizational Culture Survey as a model for academia to utilize as applied research. The business applications are intriguing, as the intangible aspects of culture become tangible. Denison's view is that people's behaviors are a reflection of the organizational culture in which they work, and that by measuring behaviors we can measure and define an organization's culture (Denison, 1996).

In addition, Fisher (in Leader to Leader, 2000) draws on Denison's connection between culture and business performance and helps leaders develop strategies to support their performance goals.

This session will introduce Denison's research and model for discussion. The findings of his research are compelling and will enable the participants to understand why organizations are or are not achieving the results they want. The model's four basic business culture traits will be presented graphically (on a circumplex). It is this circumplex that provides a diagnostic and planning tool that is both comprehensive and accessible (Denison & Neale, 1996).

Participants will also view Denison's (1996) matrix which exhibits the basic business culture traits (dimensions) relative to their greatest impact at the organizational performance level (see Table 1).

In addition, Fisher's (1997) research that drew on a wealth of data available through the application of Denison's model will extend the group's understanding of the linkages between business culture and business performance (Juechter, Fisher, & Alford, 1998).

Description of Format

The format for this session will begin with an *informative* section using a graphically based front of the room presentation. The goal of this portion of the session is to provide the participants with a knowledge base for understanding the link between organizational culture and human beliefs, assumptions, and behaviors. The theoretical framework will be discussed during this portion of the session, and the participants will be introduced to the DOCS.

The second phase of the session is a heavily *interactive* portion that directly engages participants and provides examples of their personal/organizational beliefs, assumptions, and behaviors. This portion of the session will emphasize the impact of culture on behavior, and will reinforce the direct link between behaviors and an organization's way of going about its work.

The third portion of the session will focus on application. This is a *creative* portion that calls on the participants to examine specific case studies, map their own individual or organizational beliefs and their impact on culture, and consider various human performance methodologies to support change in their own organization. This portion allows participants to experience the model presented within a framework that is familiar to each of them.

Table 1. The Link Between Cultural Dimensions and Business Performance Indicators

Profitability	Revenue Growth	Market Share	Innovation	Quality	Employee Satisfaction
...is supported by					
Mission	Mission	Mission			
Involvement			Involvement	Involvement	Involvement
Adaptability	Adaptability	Adaptability	Adaptability		
Consistency				Consistency	Consistency

This innovative session will flow as follows:

5 minutes	Opening activity relevant to beliefs and assumptions
35 minutes	What is culture & why is it important?
	History of the model
	The circumplex
	Elements of the model
	The four quadrants
	External vs. internal focus
	Stability vs. flexibility
	Center of the circumplex
	The paradox of leadership, culture, and results
	Linking culture with business results (i.e., profitability, revenue/sales growth, market share, innovation, quality, and employee satisfaction)
	Putting it all together: what the research shows (i.e., sample circimplexes)
5 minutes	Audience participation: All participants will complete a circumplex based on their own current work environments. This will provide a framework for active discussion geared around circumplexes that are meaningful to each participant.
25 minutes	Participants will be facilitated through an open discussion of case studies, best practices, and success/failure stories that will be related to the Denison model. Implications, applications, future research, questions, and points of interest will all guide this discussion.
20 minutes	Impact of the model on HRD initiatives
	General business applications
	Reference to original activity (at beginning of session) to further internalize the information provided
	Conclusions, final comments, recap of observations, implications
	Summation

Theoretical Framework

The corporate world has spent trillions of dollars on change initiatives over the last fifteen years. Customers and employees rate the effectiveness of these change programs at 10% - 20% at best (Ashkenas, 1995). The apparent fact that companies continue to fail in their strategic initiatives (Boyett, 1995) indicates that success variables have yet to be explicitly defined and/or internalized.

Alongside this already unfortunate lack of success in adapting to new strategies come the new rules of business for the 21st Century organization. As technology opens a whole new world for business operations, and completely redefines the foundations of what we know as basic business management practices, how will organizations adapt? As stated earlier, the success rates for new initiatives is already very low. But for the successful 21st Century corporation, new rules will mean the need for changing the way organizations operate. To change the way organizations operate will require that people within those organizations change their way of doing things. New ways of going about the same work will need to be created. Day-to-day routines may begin to look different. And add to this complex picture the fact that college graduates are beginning to ask for work on their *own* terms. In essence, organizations are on the verge of needing a massive culture change—a change in the way they go about their work and in the way they strive to recruit and retain valuable employees.

The Expectations of Tomorrow's Work Force

Another 21st Century survival issue facing businesses is future workers. Who are they and how do they play a role in redefining business operations?

Labich (1995) noted the changing attitudes of business graduates. He surveyed the 1993 graduate class of Harvard Business School and discovered that the graduates wanted to carve their own niches in the business world rather than slip into opportunities provided by corporations. Further, they ranked salary seventh among the reasons for career choices. Instead, they ranked job satisfaction and level of responsibility as primary concerns, followed by *company culture* and caliber of colleagues. Labich concluded that these graduates feared being pigeonholed into endless jobs with little flexibility in terms of schedules or routines. Labich's article also pointed out that the expectations of future workers were high because they desired positions where they were not required to relinquish their personal lives to business demands. In addition, Labich noted that women entering the work force were the most adamant in demanding workplace flexibility. He quoted a university student who had worked for several years as an auditor for a major firm as stating, "There is a way people are supposed to behave at work...and it's based on a male model that is hundreds of years old" (Labich, 1995, p. 50).

In essence, Labich (1995) concluded that employees want growth, variety, challenge, and careers that involve a high level of social responsibility. He also noted that these future employees expected the companies they worked for to care about them personally and professionally. Their beliefs and assumptions of what constitutes a motivating work environment may differ from the beliefs and assumptions currently held by 'upper management.'

These insights into employee expectations will need to be addressed by future workplaces. These expectations are one more piece of the 21st Century organizational puzzle, and they are pieces that directly impact the way an organization goes about doing its work (i.e., the accepted culture within any given company). Understanding the expectations of tomorrow's work force, and the relevance of these expectations to new organizational paradigms, will help us see the need for change.

The New Paradigms vs. The Old Paradigms

Godfrey (1992, p. 53) compared new and old business paradigms (see Table 2). She pointed out that for these new business considerations to take hold and become the way business is routinely done may mean an upheaval in the way organizations function. Her views are complimented by Lee and Zemke (1993), who said that the shift is from looking at skills and process behavior to examining values, attitudes and beliefs of the organization and its employees. Lee and Zemke pointed out that for change to occur within an organization, it was conceivable that the change must begin with the organization's greatest asset: its people. Hence, they concluded that the gateway from the old paradigm to the new paradigm would be leaders willing to adapt to new ways of doing things, and employees that felt secure enough in the new culture to go about their work differently.

Boyett (1995) summed up the basic business principles of the 21st Century (see Table 3). Businesses in the U. S. may need to adapt to these new business management paradigms in order to viably compete in the future. Yet, Boyett also pointed out that businesses in the U. S. continue to lag in their willingness to change their existing business paradigms. He studied a group of U. S. companies who had reengineered their businesses. Boyett found that 90% of these companies wanted to reduce expenses; less than one-half were successful. He also found that three-fourths of these companies desired production improvement; only 22% succeeded. In addition, Boyett recognized that more than one-half of these companies wanted to improve cash flow; less than 25% succeeded. Significantly, more than one-half of the companies surveyed expected to reduce bureaucracy or speed up the decision-making process; only 15% reported success. Many of the companies also sought improvements in customer service, product quality, innovation, and implementation of new technology; less than 10% succeeded.

Boyett (1995) noted that moving from single centered leadership to multiple centered leadership, from total use of internal sources to outsourcing for expertise, from independent actions to interdependent actions, from vertical directives to horizontal directives, from a uniform structure to a diverse structure, and from an emphasis on efficiency to an emphasis on efficiency with flexibility required a well-versed approach with multiple dimensions represented and explored. Morrison and Schmid (1994) added to Boyett's findings by noting that actual application is another dimension that requires education, people skills, clear communication, and incentives. Related to this application is the study of organizational culture and its relevance.

Table 2. New Business Paradigms vs. Old Business Paradigms

New Considerations	Old Considerations
Work, live, love, learn	Work, work, work
Seek meaning and money	Seek money—alone
Communication with all	Communication with a few
Responsibility to all	No responsibility
Sustain it	Use it or lose it
Grow naturally	Grow fast
Work *and* family	Work *or* family

The Relevance of Culture

According to Fisher and Alford (2000), academic disagreements regarding the issue of organizational culture and its impact on overall company performance are confusing at best. Debates ensue on definitions, as well as how to measure culture, how to develop it, and how to change it. And even if change initiatives could be defined relative to culture, what would this change mean for an organization's business results?

Table 3. Basic Business Principles for the 21st Century

Principle	Definition
The strongest structure is one without walls	Need fewer 'walls' between people, businesses, and customers
Balance of tensions	Remain disciplined, lean, focused; enhance creativity
Creation of new webs	The open corporation is really a school for entrepreneurs
In many cases, the best structure is a temporary one	With outsourcing becoming prevalent, the 'organizational chart' may change from project-to-project
Big is out—small is in	Internal interactions between divisions; no formal hierarchy; spider-web structure

The numerous definitions that have been given to the term *culture* (i.e., Ouchi, 1981; Peters & Waterman, 1982) over the years perpetuate the continued confusion. And where does this thing called culture come from? Many scholars state that culture simply happens. Others insist that culture is a manifestation of the CEO's leadership style (Petty, Beadles, Chapman, Lowery, & Connell, 1995). Hence, clarity is needed with regard to organizational culture, its relevance to organizational success, and its place in the world of business application.

Fisher and Alford (2000) insist that culture might be the most important variable with regard to creating and supporting sustainable bottom-line results. In addition, Denison (1996) noted that moving the concept of culture from intangible perceptions into the realm of quantitative assessment has, in the past, been met with considerable resistance. Denison insisted, however, that culture effects organizations in basic business dimensions (such as profitability, market share, sales growth, innovation, etc.), and that the question of *how* culture affects these dimensions is the key to understanding an organization's impact, both internally within the organization, as well as externally.

In the early 1980's, research began to quantify and measure organizational culture. A direct aspect of this research was to draw linkages between various cultural dimensions to bottom-line performance (Denison, 1984, 1990, 1996). As a part of this research, Denison began with the view that culture has its roots in deep-seeded assumptions and beliefs held by the given organization in such areas as customer service, competition, employees, etc. Denison believes that these assumptions and beliefs are not transparent, but are manifested in expressed behaviors. Since they are expressed as behaviors, they are quantifiable. In addition, Denison simplified the definition of 'culture' by bringing it into its most apparent dimension: how people act.

The Denison Organizational Culture Model

Denison's model has been applied to approximately 2000 companies ranging in size from 10 people to more than 300,000 and representing all ages, industries, and business sectors. The model measures four organizational culture traits and plots them graphically on a 'circumplex' (Figure 1). It is this circumplex that allows the model to be utilized as both a diagnostic tool as well as a planning tool (Denison & Neale, 1996).

The four culture traits of Mission, Involvement, Adaptability, and Consistency are defined by Denison as follows:

*_Mission:_ the degree to which the company knows why it exists and what its direction is
*_Involvement:_ the degree to which individuals at all levels are engaged in the same direction and internalize that direction as their own
*_Adaptability:_ the ability of the company to know what customers want and the degree to which it can respond to external forces and demands
*_Consistency:_ the ability of the organization's system and processes to support efficiency and effectiveness in reaching goals.

The paradoxes that embrace effective organizational operations are represented within Denison's circumplex. Companies must attend to forces that affect their businesses from the *inside* and the *outside*, to the *short term* and to the *long term* aspects, to things that provide focus and to things that offer flexibility. Denison's model reflects this organizational reality and serves as a starting point to help organizations strategically recognize their strengths as well as their weaknesses (Fisher & Alford, 2000). According to Ray Marshall, former Secretary of Labor, and Marshall Tucker, President of the National Center on Education and the Economy, "The successful firm is the firm that organizes itself as a learning system in which every part is designed to promote and accelerate both individual learning and collective learning—and to put that learning to productive use" (Gordon, Morgan & Ponticell, 1994, p. 195). The Denison model provides the feedback to do just that.

Organizational leaders frequently face overwhelming challenges. When faced with these challenges, these leaders usually create a new system or process in an attempt to gain control. Champy (1995) reported his interest in management was to assist businesses in improving performance. His premise centered on reengineering functions through leaders by teaching them new paradigms for *operational* processes. According to Champy, reengineering proved to be successful, yet companies still fell far short of their potential. Champy concluded that his revolutionary work omitted an ever-important variable: the people. Reengineering 'work' or operational processes without reengineering the way people work together (leaders, managers, and employees) within a given organization led to less than satisfactory results. Champy concluded that reengineering is the simple realization that the old ways of management (with charts, company schemes and traditional hierarchies) no longer apply. The picture is much more complex than charts and schematics. When change is attempted without an accompanying emphasis on more contextual and systemic changes (such as Denison's mission and involvement dimensions), organizations may well miss the mark (Fisher & Alford, 2000). People, and how they do their work and how they are allowed to do their work, make a difference to an organization's bottom-line performance. In other words, culture matters.

The HRD Link

The Denison Organizational Culture Survey (DOCS) provides a direct link between where an organization is and what an organization desires to accomplish. It reveals gaps in perceptions while also providing insight into what an organization is doing well. It highlights where an organization needs to focus its energies, and educates leaders, managers and employees relative to issues of alignment, organizational direction, employee involvement and sense of validation, etc. What leaders and employees at all levels learn about how they are currently getting their overall job done is relevant to the overall success of the organization.

According to Drucker (1992), business organizations need to become contemporary thinkers and realize that it matters whether or not people learn. It matters whether or not people learn the 'why' behind their organization's successes and challenges. It matters whether or not people are provided with continuing education and professional development that are in alignment with the organization's successful functioning. In the words of Lester Thurow (1992), "Competition revolves around the following questions: Who can make the best products?…Who has the best-educated and best-skilled work force in the world?…Without a much better trained

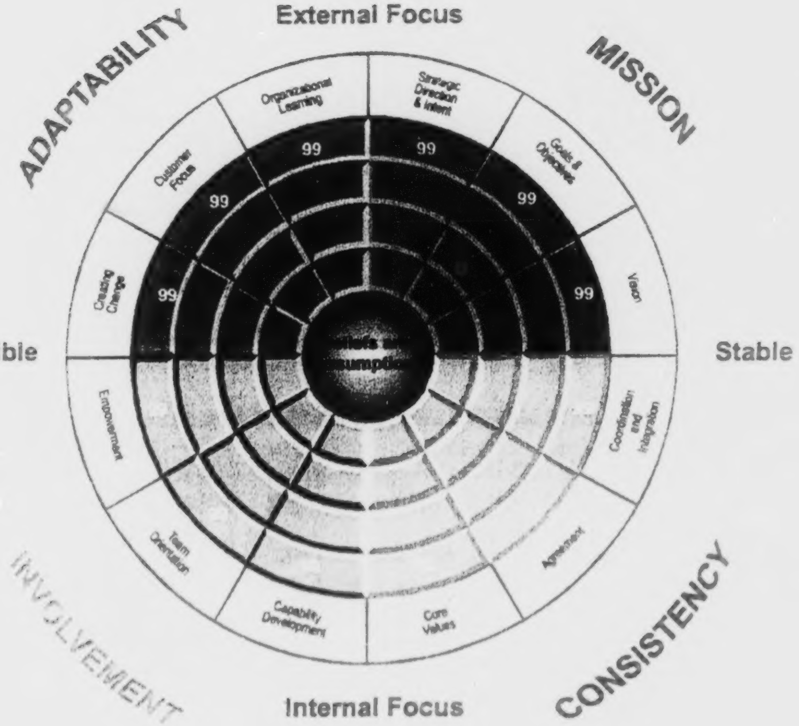
External Focus
ADAPTABILITY
MISSION
Organizational Learning
Strategic Direction & Intent
Customer Focus
Goals & Objectives
Creating Change
Vision
99
99
99
99
99
99
Flexible
Stable
Empowerment
Coordination and Integration
Team Orientation
Agreement
Capability Development
Core Values
INVOLVEMENT
CONSISTENCY
Internal Focus

Figure 1. The Denison Organizational Culture Model: The Circumplex

work force, they will not be competitive" (Gordon, Morgan & Ponticell, 1994, p. 194). But knowing what training to provide is what confuses most organizations. Training merely gets shoved into the hands of the Human Resources Department, with no clear sense of *what* training needs to be provided. The DOCS provides insights into training needs that will begin to directly benefit the overall organization in an organized, orchestrated manner that is, therefore, programmed for success.

In addition, Naisbitt (1990) stated that capital is becoming a global commodity. The valuable business component, then, becomes human resources and how well they work together in meeting organizational goals and objectives. Naisbitt concluded, then, that an organization's competitive edge will be in how human resources are deployed, utilized, retained, valued, nurtured, provided autonomy, a sense of direction, etc. The DOCS provides a roadmap to success and emphasizes the areas human resource professionals need to emphasize in order to strengthen the overall organization and bring all forces into alignment.

The DOCS also plays a direct role in the continuous learning phases of an organization. Human resource professionals are frequently asked to magically employ just the right training mix to fix (almost immediately) all of the organization's problems. But what if, for instance, innovation is not encouraged within a given organization? What good will training do to teach people innovation if the organizational culture does not respect it? Defining innovation, and what it means to an organization, and how an organization intends to value that quality, will allow for use of vastly untapped human resources. According to Senge (1990) any discipline requires a continuous effort for improvement. He further stated that excellence is never permanent, but that the corporation is always in the state of rehearsing the disciplines of learning and of growing to become better or worse. Hence, the DOCS becomes a tool that can set current reality against the backdrop of what the organization desires to become. And it is a tool that can provide benchmarking data for tracking an organization's progress over time.

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Human resource professionals should require benchmarking, and the benchmarking becomes even more valid if the individual training initiatives can be linked directly to overall organizational performance. The DOCS is a mirror that reflects an organization's soul—the very essence of its nature. Human resource professionals, therefore, don't have to take as much of the blame for all of the organization's problems. The DOCS provides the catalyst for moving forward via the very vehicle that has always moved organizations—its people.

As Fisher and Alford (2000, p. 10) said, "Are you ready for some *culture?*"

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The Impact of Self-Management on Training Participation

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In this paper, the relation between self-management and training participation is addressed. We attempt to combine HRD and economic theory to explain the observed pattern of training participation. In contrast to other (economic) studies, however, we use initiative and responsibility variables as key factors explaining training participation. Using an economic model we are able to formulate five research hypotheses, which are investigated using survey data from workers in a large insurance company.

Keywords: Training, Self-Management, Economics

The attitude of workers and firms towards careers has undergone important changes in the last decades. It used to be the responsibility of the firm to take initiatives for the career development of their employees. Now, workers are considered to be 'entrepreneurs' of their own career. Firms no longer feel responsible for the lifelong careers of their workforce, due to the fact that they increasingly need flexibility. This need for flexibility has been created by a number of developments: technological innovations, organizational developments, quality management and increased competition (Bishop, 1997; Collin, 1994; Van Vliet, 1997; Watkins and Marsick, 1993).

The changes in the relation between workers and firms have resulted in new psychological contracts. Psychological contracts are implicit agreements that are based on the expectations of workers and firms. The change in psychological contracts has resulted in a shift from the traditional organizational career to what has been termed the 'protean career' (Hall and Moss, 1998), which is a career which the person, not the firm is managing. The nature of the psychological contract determines the behavior of the parties to the contract. In this paper, we investigate one type of employee behavior that results from the (new) psychological contract: the concept of self-management. Specifically, we study the relation between the degree of self-management and training participation.

The attention for self-management has important implications for human resource development (HRD) policy in firms. In line with the changes in career arrangements, HRD policy should adapt as well: In the context of training, the role of companies and managers becomes one of training facilitation rather than initiation and complete responsibility for employee training activities. A thorough understanding of the relation between self-management and training participation is useful, since it allows a better design of new HRD policy and instruments. This type of policy can address both training *content* and training *incentive* issues.

The determinants and effects from training participation have been extensively addressed in the economic literature. In this literature, training participation is usually related to individual and work characteristics (see e.g. Blundell et al., 1996). In addition, it is primarily concerned with estimating so-called 'reduced form equations' (a notable exception can be found in Oosterbeek, 1998, who distinguishes between demand and supply factors in the explanation of training participation). This implies that these analyses do not address the underlying structural training demand and supply relations (Arulampalam et al., 1996). Some of the empirical results obtained in economic studies on training participation have become standard results. For the United Kingdom, Shields (1998), and for the United States, Altonji and Spletzer (1991), Lillard and Tan (1986), Lynch (1992) and Lynch and Black (1995) summarize most of these findings: training decreases with age, training participation is lower for females and people with children; qualifications have a positive effect on training participation; union members are more involved in training than non-union members.

This paper attempts to provide another explanation of training participation. The objective of the paper is to determine the impact of self-management on training participation.

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The central research question of this paper therefore is: *In what way does training participation depend on self-management?* The paper will be structured as follows. In the next section, we combine insights from HRD and economics to set up a theoretical framework. We then present our specific research questions and hypotheses. In the next two sections, we give a description of the survey data we used and present estimations which test our hypotheses. The final section concludes and summarizes.

Theoretical Framework

Psychological Contracts and Self-Management

Throughout the years, many different definitions of psychological contracts have been proposed. The concept was introduced by Argyris in 1960 who defined it as an implicit agreement to respect each other's norms. Levinson et al. (1962) were among the first to provide a more meaningful definition. They define a psychological contract as a product of mutual expectations that are implicit and unspoken, which may antedate the employment-organization relationship. They consider the contract to be dynamic in nature, implying that changes in individuals, organizations or in the broader context have a direct effect on the psychological contract and its outcomes. Many authors have noted that the psychological contract has changed considerably during the last decades. Whereas the *traditional* psychological contract is concerned with trading job-security for loyalty, in a *modern* contract employees offer flexibility while firms offer possibilities to remain employable. An important feature of the behavior of the parties to a psychological contract is the *degree of self-management*. The degree of self-management may be characterized by four career management competencies (Ball, 1997): a) optimizing the current situation, b) using career planning skills, c) engaging in personal development and d) balancing work and non-work activities. In this paper, we focus on the third career management competency: engaging in personal development. In a modern psychological contract, the individual and managerial perceptions on this self-management characteristic determine the outcomes of the psychological contract. In line with this theoretical assumption, the self-management perceptions of both individuals and managers influence training participation.

When the degree of self-management is discussed, often a distinction is made between a) self-management perceptions on initiative and b) self-management perceptions on responsibility. In the context of this paper, self-management is confined to the initiative and the responsibility for *self-development* (Delf and Smith, 1978), i.e. training participation. Self-development initiative is defined as taking the lead in initiating training participation. Self-development responsibility may be defined as the perceived obligation to be liable for training outcomes. It is however, unclear how both components influence training participation *empirically*. The goal of this paper is to investigate this issue from an interdisciplinary perspective.

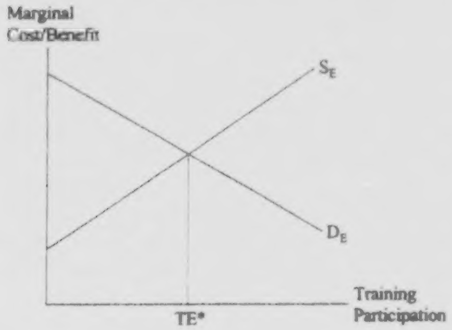
Economic Model

The choice of training intensity can be related to the degree of self-development using a (micro-)economic model. Since the decision on training participation is a joint decision of employees and firms (managers), we develop a two-party model, which results in an equilibrium level of training intensity. This equilibrium is derived from a standard micro-economic demand/supply framework. We first derive optimal training intensity equilibria for the workers and managers separately. Then, in a second step, we combine these to determine a general training equilibrium.

The Worker. The demand for training is based on workers preferences. It is assumed that these preferences are affected by workers' self-development initiative. In figure 1 below, the training *demand* curve represents the marginal *benefit* to training. We assume that the marginal return is higher at each level of training for the employees with a high level of self-development initiative compared to those workers with low self-development initiative. This is due to the fact that these employees value career success (and the associated extra future income) more then the low self-development initiative individuals. In economic terms, this implies that workers with high levels of self-development initiative have a higher preference for future returns and thus a lower discount rate (for details: refer to Varian, 1992). If we suppose that the degree of self-development initiative is only reflected in the intercept of the demand curve, this implies that the training demand curve for a high self-development initiative individual is situated above the training demand curve for the low self-development initiative worker.

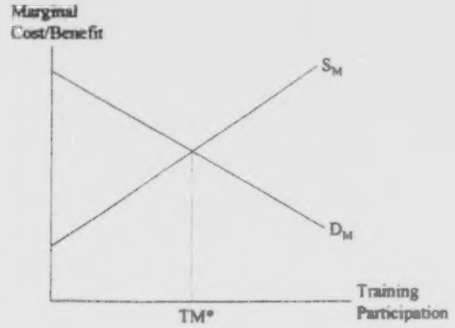
The training *supply* curve maps the marginal *cost* of training. Costs for training are the effort and time workers have to invest in order to be trained. We assume that workers with a higher degree of self-development responsibility will perceive higher costs of training. This implies that for these people, the training supply curve for training effort will be above the supply curve for people with a low level of self-development responsibility. Figure 1 shows the demand and supply curves for training as well as the intersection of these curves, which represents the desired training intensity by the employee, TE*. The model for the workers' desired training participation intensity predicts a positive effect of self-development initiative on training participation since it moves the training demand curve to the right. The expected effect of the level of self-development responsibility on desired training participation, however, is negative.

Figure 1. Derivation of the Desired Equilibrium of Training Participation by Employees



The Manager. The manager's decision on the desired training intensity for his employees is also derived from a training demand/supply model. The training *demand* curve represents the marginal benefit of training as perceived by the manager. One of the variables behind this demand curve, the opinion of the manager regarding the level of self-development initiative of his employees, is related to the manager's time perspective. Managers that mainly value current performance of their employees without much interest in the development initiative of their employees and their future performance are supposed to have a lower level of desired self-development initiative than managers that regard HRD a key priority. Assuming that managerial self-development initiative only influences the intercept of the demand curve implies that the demand curve for employee training for high self-development initiative managers will be above the demand curve for managers with low self-development initiative. The supply curve for the training of the employees reflects marginal training costs perceived by the manager. Managers that lay responsibility for training entirely with their employees expect lower training costs at each level of training. This is due to the fact that they themselves do not have to be involved much in the training of their employees, and this reduces training costs for the firm. In figure 2, both the manager demand and supply curves for employee training are shown. The manager desired equilibrium employee training intensity is TM*, the intersection between the training demand and supply curves.

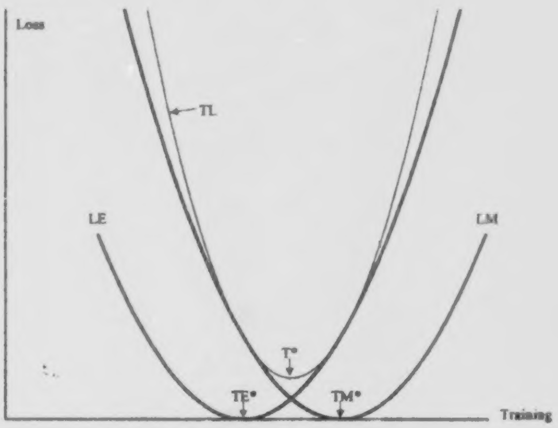
Figure 2. Derivation of the Desired Equilibrium of Training Participation by the Manager



We thus expect the opinions of the manager regarding both self-development initiative and responsibility to have a positive effect on training participation. The manager's opinion on self-development initiative is expected to have a positive effect on training participation due to the fact that managers who feel that their subordinates must take initiative for their own training see more of the benefits of training, leading to a higher demand. Self-development responsibility is expected to have a positive effect on training participation since more responsibility for the employee implies less responsibility for the manager and leads to lower costs for the manager (firm).

The Equilibrium Level of Training Intensity. In the previous two subsections the desired training intensity for the employee (TE*) and the desired training intensity from the manager's perspective (TM*), have been determined. In this section, we combine these two individual equilibria. Note that we can distinguish two possible cases. Firstly, the manager and the employee may agree on employee training intensity (TE*=TM*). The other case is training-intensity incongruence: in this case the equilibrium training intensity will be different for the employee and the manager (TE*≠TM*). In order to find a training equilibrium in the latter case, we define two equilibrium loss functions, which are relationships between the disequilibrium and the welfare loss associated with this. With linear demand and supply curves for both the employee and the manager, these equilibrium loss functions are quadratic (for details on this, please contact the authors). We assume that equilibrium occurs when the total loss (determined by the addition of the two loss functions) is minimal. In figure 3, this equilibrium is derived. From the figure it becomes clear that the equilibrium training intensity, T*, will be somewhere between the employee and manager individual equilibria (TE* and TM*).

Figure 3. The Equilibrium Training Intensity, Derived from Employee and Manager Loss Functions



It can be shown that, with the assumptions we made, the equilibrium training intensity T* is dependent on the four indicators for self-development (SDI=Self-Development Initiative; SDR=Self-Development Responsibility; subscript $_{e/m}$=employee or manager) in the following manner:

$$(1) \qquad T^* = \alpha + \beta_1 SDI_e - \beta_2 SDR_e + \beta_3 SDI_m + \beta_4 SDR_m + \varepsilon_e$$

Research Questions and Hypotheses

From the previous discussion, the main objective may be operationalized using four research questions:

1. To what degree does training participation depend on individual perceptions on self-development initiative.
2. To what degree does training participation depend on managerial perceptions on self-development initiative.
3. To what degree does training participation depend on individual perceptions on self-development responsibility.
4. To what degree does training participation depend on managerial perceptions on self-development responsibility.

Self-Development Initiative and Training Participation

Self-development initiative has been defined as taking the lead in initiating training participation. This implies that a positive relation between self-development initiative and training participation may be expected. However, the relation between the individual perception of self-development initiative is direct (since the individual that perceives and acts is the same) while the relation between managerial self-development initiative is indirect. This implies that we expect the relation between individual self-development initiative and training participation to be stronger than the relation between managerial self-development initiative and training participation. This leads to the following three hypotheses:

H1: The degree of individual self-development initiative has a positive influence on training participation.

H2: The degree of managerial self-development initiative has a positive influence on training participation.

H3: The relation between the individual self-development initiative perception and training participation is stronger than the relation between managerial self-development initiative perception and training participation.

Self-Development Responsibility and Training Participation

Self-development responsibility has been defined as the perceived obligation to be liable for training outcomes. Whether a stronger self-development responsibility with respect to training participation automatically leads to a higher participation in training is far from clear, even though this relation has been suggested by some authors. This does not imply that the influence of self-development responsibility within the psychological contract is denied. A positive effect from self-development responsibility on training participation is possible, but seems less evident than the positive effect on training participation for the earlier mentioned element of self-development: initiative.

Our discussion has shown that, from an economic perspective, the effect of individual self-development responsibility may even be negative. If individuals with a high level of individual self-development responsibility perceive a higher required training effort, the consequence is that speaking in economic terms, these individuals perceive higher individual training cost. This implies that, when training benefits remain equal, the equilibrium level of training participation will be higher for individuals with low self-development responsibility than for those employees with high self-development responsibility.

The effect of managerial self-development responsibility is likely to have a positive effect on training participation. If managers feel that employees should bear the responsibility (and thus costs) of their own training, this implies that less costs need to be born by the manager (or the firm). This leads to two additional hypothesis:

H4: The effect of individual self-development responsibility on training participation is negative.

H5: The effect of managerial self-development responsibility on training participation is positive.

Methodology

The data we use in this paper come from a survey we conducted in a large Dutch insurance firm in early 1999. We focused on a specific group of workers within this firm, the so-called 'file employees'. Their job mainly consists of dealing with insurance benefit applications, determining the amount of money a client is entitled to, dealing with clients incidentally on the telephone, and keeping the files of clients up-to-date. We restricted the survey to one occupational group within the firm for two reasons. Firstly, from in-depth interviews with key policy makers beforehand, we knew that this group has had to deal with a number of important changes, making the issue of training relevant to these workers. Many workers stated as important changes: changes in legal regulations (34%), the computerization of work (30%) and changes in the organization of work (23%). Secondly, we wanted to eliminate as much as possible unnecessary variation between workers due to differences between occupations.

The workers we surveyed are organized in teams, consisting of about 20 people and a manager. We surveyed 100 employees in 11 of those teams, 50 from each company division, drawn from a population of about 480 people using a stratified sampling scheme. We first selected 11 teams; in a second step, around half of the workers within each team was selected to take part in the survey. Thanks to careful communication with potential respondents beforehand, the response rate was very high (91%). The small share of non-respondents – mainly due to holidays or illness – was randomly replaced by colleagues from the same team. We later approached the team managers with a slightly different questionnaire. We were able to link employees with managers, giving us a worker-manager panel with 100 workers and 11 managers. Due to the fact that the model in this paper contains both employee and manager variables, we restricted the sample to those respondents that have been working for the same manager for at least three years. This implies that 59 cases remain for analysis.

Training Variables

The respondents were asked for a detailed history of previous learning activities. They were given the opportunity to list a maximum of 14 training courses they themselves think were the most important for their career. The survey shows that, while the average tenure of workers is 14 years, the average number of training courses mentioned is 2.94; the majority of them are courses related to the insurance business. Many details on these training courses were collected, such as the duration and timing of the course and the type and subject of the training course. In the context of this paper, training intensity is defined as the *number* of training courses in the years 1997-1999.

Self-Development Variables

Both the employees and their managers were questioned about self-development. The employees were asked two self-development tendency questions. The first one captures self-development initiative. Respondents were asked whether they felt that they are responsible for taking the initiative for their own training. They answered on a five-point scale, ranging from "completely agree" to "completely disagree". A similar question was asked on self-development responsibility: employees where questioned on whether they feel that they should bear the responsibility for their own training. The survey data show that a large proportion (>75%) of the workers agrees that they should take the initiative for training themselves and should bear responsibility for their own training. The managers were asked a similar question, which only differs from the employee question in that it was phrased to determine the opinion the managers have on the self-development initiative and responsibility of their employees.

Results

Table 1 presents the results of the OLS-estimation of equation (1). Both the employee and the manager self-development initiative variables have a significant and positive effect on the number of training courses taken. Furthermore, the results show that the magnitude of the effect of employee self-development initiative on the number of training courses is about twice as large as compared to the effect of the manager self-development initiative. The self-development responsibility variables have no significant effects on the number of training courses taken. The results imply that H1, H2 and H3 are confirmed. For H4 and H5, no evidence can be found.

Table 1. The Effect of Self-Development on Training Intensity, OLS-Estimation

	Coefficient	Std. Error
Employee variables		
Initiative for own training	0.812**	0.258
Responsibility for own training	- 0.401	0.233
Manager variables		
Initiative for employee training	0.420*	0.197
Responsibility for employee training	- 0.692	0.404
Constant	1.004	
R-sq	0.206	
N=	59	

Taking Account of Endogeneity

The present set-up of the model does not take account of the possibility of endogeneity of the key variables. In this section, we therefore assume that the amount of training a worker has already taken part in has a positive effect on self-development initiative. This can be considered a *learning-effect*: workers gain knowledge on the usefulness and profitability of training whenever they take part in training. Therefore we re-estimate the model using training intensity (T) and a number of additional explanatory variables (OV, consisting of marital status, gender, tenure and educational level) as instruments for the degree of individual self-development initiative. The model then becomes as follows :

$$\begin{aligned} T^* &= \alpha + \beta_1 SDI_e - \beta_2 SDR_e + \beta_3 SDI_f + \beta_4 SDR_f + \varepsilon_e \\ SDI_e &= \psi + \omega_1 T + \omega_2 OV_e + \tau_e \end{aligned} \tag{2}$$

Estimating the system of equations in (2) requires a 2SLS estimation, and the results are shown in table 2 below. When these results are compared to the simple OLS-estimation in table 1, a couple of conclusions may be drawn. Firstly, the explanatory power of the analysis (R-squared) increases by around 4%. In addition, we can now accept four of our five research hypotheses: Both self-development initiative variables remain significant and positive while the employee self-development responsibility has a negative sign and is significantly different from zero. In addition, the degree of employee self-development initiative has a much stronger effect than the managerial self-development initiative. The manager's opinion on self-development responsibility has no significant effect; we therefore cannot accept H5.

Table 2. The Effect of Self-Development on Training Intensity, 2SLS-Estimation

	Coefficient	Std. Error
Employee variables		
Initiative for own training	3.312**	0.858
Responsibility for own training	- 1.233**	0.461
Manager variables		
Initiative for employee training	0.767**	0.347
Responsibility for employee training	- 0.887	0.675
Constant	- 6.115	
R-sq	0.241	
N=	59	

Conclusions

HRD professionals from around the world point out that the changing conditions in many work situations have changed the psychological contract between employees and firms. In this paper, we have attempted to investigate one of the components of employee behavior that is directly linked to the psychological contract: the concept of self-management. The research objective in this paper was to link self-management to training participation using insights from both HRD and economics.

The combination of an economic model for training participation and insights from HRD allowed us to formulate five hypotheses on the relation between self-development and training participation. From the empirical part of this paper, we are able to accept four hypotheses. Firstly, the degree of individual self-development initiative has a positive influence on training participation. Secondly, the degree of managerial self-development initiative has a positive effect on training participation. Thirdly, the effect from individual self-development initiative is stronger than the effect from managerial self-development initiative. Finally, the effect from individual self-development responsibility has a negative effect on training participation, implying that our economic cost-based explanation of this concept may be valid.

This paper has also shown that combining insights from economics with concepts from human resource development research may increase our understanding of empirical information on human resources. Using a similar methodology for other fields in HRD may therefore be an interesting starting point for further research, both from a theoretical and a policy point of view.

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Corporate Training as an Organization Subsystem

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Organization subsystems of finance and corporate training are compared. Finance models focus on capital as the key variable to be optimized, however, HRD or corporate training models see intellectual capital as the variable to be optimized. With both seeking to optimize different qualities within the larger system, one variable is likely to be sub-optimized. The ramifications of the situation are discussed, targeting the issue of increased accountability in measurement as an area for further research.

Keywords: Evaluation, Corporate Training, Modeling

Organizations can be viewed as systems, i.e., "a collection of parts which interact with each other to function as a whole" (Kauffman, 1980, p. 1). As complex systems, organizations contain sub-systems, which are smaller functioning systems that operate within the larger system. Examples of these subsystems would be the finance department, the corporate training department, or the marketing department. These subsystems are just part of the larger ladder or hierarchy of systems that create the organization, our civilization, our earth and the largest system, our universe (Kauffman, 1980). Each subsystem is purposeful and "goal-seeking" (p. 29), and plays its own part in the delicate balance of its host system, each working toward the same larger goal of the betterment of the host organization.

Many organizations today, have created a destructive relationship between some of their subsystems, a relationship in which they compete for financial sustenance, at times against the purpose of the organization. This type of relationship is often termed a "tragedy of the commons." Kauffman (1980) describes the original tragedy of the commons story; it concerned the common pastures in medieval England and colonial America. The common pastures were places in which the town folk were entitled to let their cows graze. Because the nourishment for the cows was free, each individual bought as many cows as possible and let them graze freely, each desiring to grow their herd quickly. However, as every individual saw the same opportunity, soon the lands were without grass and could not longer sustain large herds. As a result, all of the individuals suffered. As each person acted independently, with what appeared to be the most sensible decision from their perspective, their actions ended up hurting all involved.

In this paper, the tragedy of the commons will be shown as similar to the relationship that has been created between the corporate training subsystem and the finance subsystem. Both subsystems are working towards the benefit of the larger organizational system, however, using different and competing methods. While this paper will focus on the corporate training subsystem, parts of the finance subsystem will be used as elements of comparison. This paper is not intended to portray a deterministic or pessimistic view of the future of corporate training; therefore, a possible area for further research and inquiry into alleviating the destructive relationship will be presented. It will be shown that there is a component that is often overlooked in the corporate training subsystem, one that appears already in the finance subsystem (Boudreau & Ramstad, 1997). That missing component is rigorous evaluation of interventions or investments (Boudreau & Ramstad, 1997; Froman, 1994; McLagan, 1989; Swanson, 1994; Swanson & Holton, 1999).

The subsystem of corporate training will be discussed and compared with elements of the finance subsystem, ultimately explaining the tragedy of the commons situation. Utilization of systems theory for this discussion is relevant and helpful due to the complex nature of organizations, their subsystems, and the array of internal and external forces that are always in play with the issues raised here. Both subsystems will be described using characteristics of complex systems as described by Kauffman (1980). Those characteristics are systems as: goal seeking, self-stabilizing, program-following, and self-reprogramming.

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Systems as Goal-Seeking

Evidence supports the idea that knowledge is now becoming the way in which organizations can gain a competitive edge; consequently, intellectual capital constraints can be seen as increasingly critical to organizational performance (Boudreau & Ramstad). Corporate training is one of the physical manifestations of that idea. At present, one overarching goal of training is, "the development of workplace expertise" (Swanson & Torraco, 1995, p. 40). Or more specifically, a training and development effort can be designed to, "increase an individual's level of self-awareness, skills, and/or motivation to perform his or her job well" (Froman, 1994, p. 159). Corporate training subsystems are also often integrated with Human Resource Development (HRD) subsystems, whose goal is to "design and create high-performance organizations" (Swanson, 1994, p. 13), training being one component of that strategy. Thus, the corporate training subsystem exists to equip the employees who utilize its services to function more efficiently in the organization; consequently the organization should perform at a higher level. Admittedly, training can often be used in organizations for other reasons than performance improvement, such as employee satisfaction, commitment, or the dissemination of corporate culture. However, for this discussion the focus of training will largely be for performance improvement—something that has a strong likelihood of being linked to the bottom line.

The Human Resources or Corporate Training subsystem uses its services for the betterment of the larger system. Similarly, the subsystem of finance is also looking out for the best interests of the larger organization, through the measurement and analysis of the financial status of the company (Merrill Lynch, 1997). The financial subsystem exists both as an informational source as well as a consultative source for the organization. As informational, it seeks to present the company's business performance in dollar terms. Therefore, it captures and reports information about cash flow, what the company owes and owns, provides a dynamic picture of how the company has performed comparing different time periods, as well as presents information about the changes in shareholder equity (Merrill Lynch, 1997). As a consultative source, its goal is to treat capital as the most significant constrained resource and show the organization the best ways to use it to regain some form of capital return, as well as to predict the future capital-based value of the organization (Boudreau & Ramstad, 1997).

Where these two subsystems come into conflict is what they consider to be constrained resources. Finance models focus on capital as the key variable to be optimized, however, Human Resource or Corporate Training models see intellectual or human capital as the variable to be optimized (Boudreau & Ramstad, 1997). With both seeking to optimize different qualities within the larger system, one variable is likely to be sub-optimized (Kauffman, 1980).

Systems as Self-Stabilizing

Which variable is ultimately sub-optimized could depend on the philosophy of the organization, since it is its decision whether or not to invest in training that is the dependent variable (Boudreau & Ramstad, 1997). Environmental forces at play external to the organizational system affect this philosophy. The feverish pace of change has caused many of those who train to believe that the only real competitive advantage left is human capital or intellectual capital. A large component of obtaining the competitive advantage is to make substantial investments in talent development, i.e., training (Boudreau & Ramstad, 1997; Ireland & Hitt, 1999; Wright, Dyer, & Takla, 1999).

Organizations must pay attention to the environmental forces in order to adjust their subsystems' functioning. Kauffman (1980) describes complex systems as able to respond to environmental changes in such a way as to remain stable. The forces from the environment are captured and relayed back to the system in the forms of positive feedback loops, which amplify the change seen in the environment, or negative feedback loops, which negate changes found.

As cutthroat competition meets the tight labor markets, organizations are being forced to think about employees differently. Wright et al. (1999) emphasizes the point that there is no longer the loyalty that once existed between employee and employer, in fact, now that social contract is broken and there is an open market competition for talent. As such, employers will need to be willing to invest money into developing the talent they acquire in efforts to update their knowledge and skills, and to retain them. The increase in knowledge and expertise benefits the organization in the face of competition, and employees who are given the opportunity for continuous learning feel more involvement (Ireland & Hitt, 1999).

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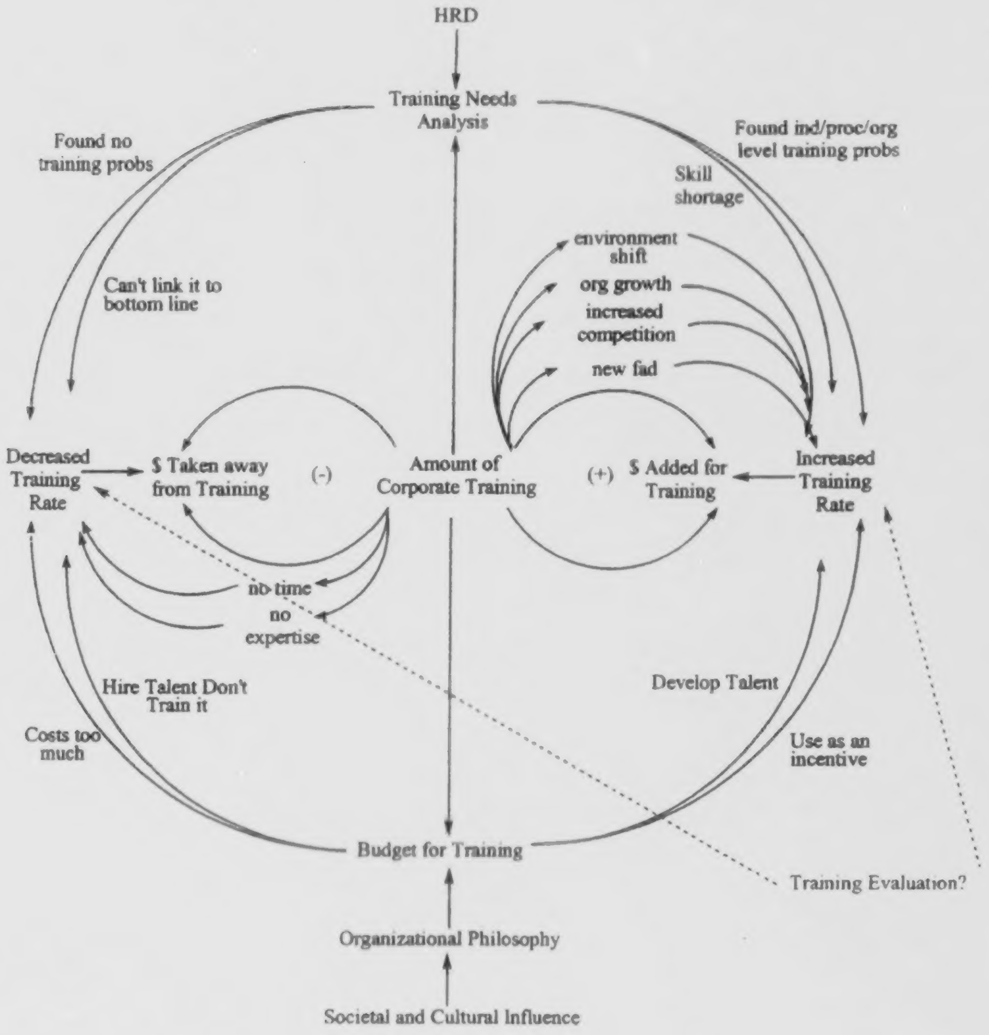
It is possible to view this effect on corporate training using positive feedback loops. As an organization receives information from its environment about competition, change, labor shortage, or the like, it sees the viable option to invest more money in training. Therefore, more dollars are invested to develop the talent and the amount of corporate training increases (see Figure 1).

While this might be the response of one system, another system might rely solely on the costs of the training, considering capital to be the more significant constraint, therefore, deciding that it is likely too much of an

Figure 1. Forces Impacting Corporate Training Shown Using Positive and Negative Feedback Loops.


HRD
Training Needs Analysis
Found no training probs
Found ind/proc/org level training probs
Skill shortage
environment shift
org growth
increased competition
new fad
Can't link it to bottom line
Decreased Training Rate
$ Taken away from Training
(-)
Amount of Corporate Training
(+)
$ Added for Training
Increased Training Rate
no time
no expertise
Hire Talent Don't Train it
Costs too much
Develop Talent
Use as an incentive
Budget for Training
Training Evaluation?
Organizational Philosophy
Societal and Cultural Influence

- Forces adapted from articles by J.W.Boudreau and P.M. Ramstad, 1997; P.M. Wright, L. Dyer, and M.G. Takla, 1999; R.D Ireland and M. A.Hitt, 1999 to create this diagram investment (Boudreau & Ramstad, 1997). Consequently, that negative feedback loop limits the amount of dollars given to corporate training, thereby reducing the overall amount of training delivered. Additionally, a number of other forces affecting the organization might also influence the amount of training delivered (see Figure 1) (Boudreau & Ramstad, 1997; Ireland & Hitt, 1999; Wright et al., 1999).

The subsystem of finance plays a large role in that negative feedback loop, because it provides the organization with a basis to make capital decisions (Boudreau & Ramstad, 1997). However, the way in which financial accounting measures have evolved, has lead them to be less than effective in measuring intellectual assets (Boudreau & Ramstad, 1997). After being given the accounting information, organizations place values on the investments they intend to make, one of which would be corporate training. However, the values that are affixed to the potential outputs of training are often mislead or inaccurate, because the training results are not accurately assessed. Otherwise identical programs can vary substantially in their impact, depending on "how they affect the different constrained and/or unconstrained resources in the organization" (Boudreau & Ramstad, 1997, p. 348). It becomes more apparent why the two subsystems are at odds, the subsystem of finance sees training as a cost center, while the corporate training subsystem feels the financial accounting measures placed upon them, are stifling and not accurate measures of what is really accomplished.

Systems as Program-Following

In order for the corporate training subsystem to function, to accomplish its goals, it needs a few major components: financial sustenance, trainers, participants, and programs. Financial sustenance comes from the top leadership of the company making a conscious decision to invest in training (Swanson, 1998). The trainers are pulled from either internal or external sources and are known either for their expertise in the industry or for their training ability (Delahaye & Smith, 1998). The participants can come from a wide variety of sources, depending on the rationale for the training program. Trainers will meet just-in-time training needs for employees, such as technical skills that are necessary for on-the-job functioning, however, trainers will also cover material that is considered more beneficial to the long term health of the organization, such as conflict resolution or teambuilding skills (Delahaye & Smith, 1998). In terms of the method of training, there are content as well as process considerations, all of which are determined by the rationale for the training and also affect the type of outcomes expected (for a good review of training needs and appropriate methods see Delahaye & Smith, 1998).

The investment in the quality and amount of inputs granted to the corporate training subsystem depends on the value the host organization places on the intended output, e.g., a more knowledgeable or skilled employee. This is due to the fact that organizations may place more value on other ways of obtaining the same result, such as hiring the talent, or leaving the responsibility on the employee to develop him or herself (Swanson, 1998). Despite quality and quantity differences that might exist between organizational systems, the aforementioned components are necessary for corporate training's functioning.

The individuals within systems have the ability to follow a program, in other words, they are able to follow a sequence of steps in order (Kauffman, 1980). The program-following characteristic of the corporate training subsystem involves the components acting out a fairly standard formula, or a closely related variant; the formula tends to be analyze, design, develop, implement, evaluate (Swanson, 1994). While there are other models that break the steps into further detail (Sadler, 1998), the concepts are similar. The analysis phase discussed by Swanson (1994) determines the performance requirements of the organization and the desired performance goal or standard. The parts of the system working together here are the program developers and the management of the department seeking training. The following three phases involve the trainer setting training objectives, designing or choosing an off-the-shelf the training program, identifying training techniques, planning resources, and delivering the training (Sadler, 1998). The final phase is the evaluation of the training; the type of and emphasis on evaluation varies for each organization (Swanson & Holton, 1999). Effective interactions of systems parts during the evaluation phase will be discussed in greater detail in following sections.

As each system follows its own steps or program, it does not exist in a vacuum; the forces of the environment in which it exists affect it (Kauffman, 1980). Taking an open systems perspective, training should be less of a linear event; rather, it should be cyclical, under constant change due to internal and external influences.

Systems as Self-Reprogramming

As discussed above, systems are goal-seeking, are able to follow programs, and take in feedback from the environment to be self-stabilizing. As systems become more complex, they acquire the ability to modify their programs in order to avoid or repeat errors (Kauffman, 1980). However, how can a system be self-reprogramming

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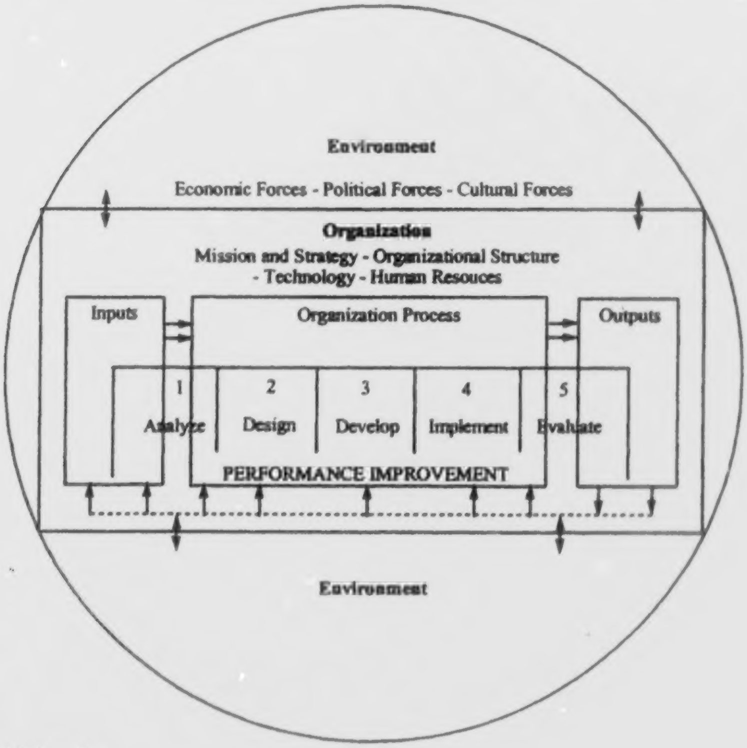
without the important quality feedback that might require a change in the "type" or "quality" of training, not just the amount? This is what is missing from most programs followed by corporate training subsystems. The phases of analyze, design, develop, implement, and evaluate are followed, however, the cyclical link is not made; true evaluation of learning is not measured and thus cannot influence the next round of training events (Boudreau & Ramstad, 1997; Froman, 1994; McLagan, 1989; Swanson & Holton, 1999).

The only insurance most organizations receive from their training experts are pieces of paper from participants stating whether or not they believe the training was worthwhile (Dixon, 1990; Swanson & Holton, 1999). However, these participant reactions, often called 'smile sheets,' are the least valid form of information about performance outcomes (Dixon, 1990; Swanson & Holton, 1999). While likely not created to assess learning, at present, these participant reactions are commonly the only forms of evaluation that organizations use to assess training effectiveness (Easterby-Smith, 1998; Swanson & Holton, 1999). Therefore, the organization is likely to feel that all training efforts, beyond the just-in-time training that are necessary to perform the tasks of the job, are a waste of time and money.

Consequently, the corporate training subsystem to truly be self-reprogramming, evaluation needs to actually measure what has been effective and what has been in error, so that the subsystem can correct itself and remain effective. The original program created by Swanson (1994) intended for there to be rigorous evaluation methods of training tied into the organization's core processes and outputs, to insure that this information was meaningful and fed back into the training loop (see Figure 2).

Figure 2. The Systems Model of Performance Improvement: Performance Improvement Phases.


Environment
Economic Forces - Political Forces - Cultural Forces
Organization
Mission and Strategy - Organizational Structure
- Technology - Human Resouces
Inputs
Organization Process
Outputs
1
Analyze
2
Design
3
Develop
4
Implement
5
Evaluate
PERFORMANCE IMPROVEMENT
Environment

- R.A. Swanson, 1994, p. 20

This lack of effective measurement has at least two major effects, first, there are quality improvement and error-reducing opportunities missed, but just as importantly, there is no assessment of the quality of results produced. The corporate training department has little concrete data to show for their efforts, and therefore, little leverage power to use when lobbying for more investments in their subsystem (Swanson & Holton, 1999). Without adequate data to show the subsystem of finance that training is not merely a cost center, the finance subsystem will not report that capital investments made in that area will produce returns. Thus, the tragedy of the commons continues, until the corporate training subsystem can accurately report its effectiveness.

Evaluation

Over time, the subsystem of finance has developed and applied adequate measures to report the effectiveness of organizational investments and processes (Boudreau & Ramstad, 1997). However, the corporate training subsystem, at present, is not adequately evaluating itself (Boudreau & Ramstad, 1997; Froman, 1994; McLagan, 1989; Swanson & Holton, 1999). First, it does not routinely conduct evaluations of its results, and second, it has not developed the right tools to measure the positive changes it has made in the quality of human capital in the organization. It is not able to determine whether or not is processes are appropriate or effective and therefore, is not able to consistently justify its value within the larger organization (Bates, 1999; Easterby-Smith, 1998). What is needed, is a new technology of evaluation that can change the relationship of the corporate training subsystem and the finance subsystem from one with different values, to one of alignment.

Financial accounting measures have been formulated to quantify business success in terms of equity measures, such as profits per share, return on investment (ROI), or internal rate of return analysis (IRR); measurements have been designed specifically for managers to be able to maximize their return on capital (Boudreau & Ramstad, 1997). While one might argue that human performance could be measured in the same manner, some would rebut that these financial models were designed to maximize capital return and not incorporate the more intangible human performance elements (Boudreau & Ramstad, 1997).

Therefore, there are practitioners in the industry and those in academia that are pushing for a new revolution of evaluation methods (Bates, 1999; Boudreau & Ramstad, 1997; Swanson & Holton, 1999). Such a measurement system would change the way decisions are made about training investments, it would no longer be necessary to rely on merely the dollar costs of the program (Boudreau & Ramstad, 1997). The most important part about this development would be that the links would now be apparent, one would no longer have to speculate about whether or not there were any direct effects of the training (Boudreau & Ramstad, 1997). This new revolution requires the use of a sound model for training, a framework for evaluation, the utilization of current or creation of new adequate measurement tools, as well as a philosophy of commitment to the benefits of evaluation held by the individuals at every level of the organization.

The performance improvement diagram presented by Swanson (1994) demonstrates a current viable model for thinking about training and performance that includes evaluation as well as some forces that affect the system (see Figure 2). With this model, it is apparent that effort is focused on all five phases of the development of an intervention, including evaluation. In addition, these efforts are tied into the mission and strategy of the organization and consider the external forces that might affect what intervention is chosen. If corporate training begins to use this systems view of their goal, it will be closer to finding the evaluation methods to alleviate the problems that exist.

Regarding a framework for evaluation, Swanson and Holton (1999) have refined the methods of evaluation to a point where they are much more rigorous than others to date are. Their Results Assessment System evaluates performance improvement on three domains, learning improvement, systems improvement, and perceptions. Learning improvement not only assesses knowledge but also applied expertise gained from the training intervention. The perceptions are gathered from the participants as well as the sponsors of the training program. Participant and sponsor buy-in are important measures for any change process, but are not used to evaluate the learning. Finally, and most promising, is the idea of measuring both systems change and financial change due to the training intervention. The Results Assessment System provides a more concrete framework in which to view evaluation.

While this model and framework are exciting, where Human Resource Development and Corporate Training are lacking is in the development, validation, and appropriate utilization of measurement tools. In effect, eventually being able to answer some of the following questions, what are the appropriate things to measure given this job and this situation? What exactly am I trying to glean from the information, merely how well people enjoyed their physical surroundings during classroom training, or how much they have been able to apply six months later? What tools will measure exactly what I am looking for? The new revolution of evaluation would take full advantage of the current tools that are available, seeking their validation through empirical research, as well as continue to develop, test, and validate new ones (Boudreau & Ramstad, 1997).

As evaluation at the perception level is currently the most widely used method for evaluating training (Dixon, 1996), there is a plethora of existing tools available (for a good review see McLean, Sullivan, & Rothwell, 1995; Easterby-Smith, 1998). The true value of gathering data at the perception level is not to evaluate whether learning had taken place, rather to insure that the training was "building interest and attention and enhancing motivation" (Holton, 1996, p. 10). These existing tools would continue to serve their purpose in the ideal evaluation system. Evaluation at the learning level should imply that knowledge has been retained, and that it can be seen behaviorally on the job (Swanson & Holton, 1999). Currently, tools for evaluating the former are most often in the form of paper and pencil tests (Swanson & Holton, 1999), for the latter several tools are deemed effective, from simulations to interviewing to using critical incident checklists (McLean, Sullivan, & Rothwell, 1995). To produce the most ideal result, these measurements should be targeted at obtaining only those indices that were chosen as objectives for the training (McLean, Sullivan, & Rothwell, 1995).

Evaluation at the performance level currently means using existing financial tools to assess organizational performance (Boudreau & Ramstad, 1997); however, this does not necessarily imply that the only variable causing the improvement in those metrics was the training (Boudreau & Ramstad, 1997; McLean, Sullivan, & Rothwell, 1995). It is the opinion of this author that those existing financial tools do not adequately measure the more intangible human capital developments that can tangentially affect organizational perforamnce. Thus, while tools exist to measure organizational performance on both a systems and a financial level (Swanson & Holton, 1999; Boudreau & Ramstad, 1997), the links of how the training influences that performance is not yet clear (Boudreau & Ramstad, 1997). Therefore, the new revolution of evaluation would continue to use exploratory and confirmatory research methods to fill in those gaps (Bates, 1999; Boudreau & Ramstad, 1997; Russ-Eft, 1999). The ultimate focus of each tool should be created around the specific definition of performance for that organization, as definitions of what is valued as performance can vary (Bates, 1999).

Ultimately, many gaps exist. One of the largest concerns here, is the utilization of inadequate evaluation or measurement tools, or just as importantly the lack of evaluation altogether. Therefore, in addition to the new revolution of evaluation methods and tools, the revolution would also have to include a philosophy of commitment from organizations to successfully implement the above. This philosophy would include: financial commitment to investment in training and evaluation methods, resources commitment such as trainer expertise and time allotted, and also a reciprocal relationship between top management and staff to increase accountability for performance improvement at all levels. A fuzzy and unclear picture still remains as to what this revolution would materialize as, but the call is out there for increased research by Human Resource Development professionals in this area.

Conclusion

Many organizations cringe at the thought of investing their hard-earned dollars into training for employees. Most of them read daunting information such as "…with courses ranging from $1,395 for a three-day seminar at Vanderbilt University on effective management techniques to $40,500 for a nine-week advanced management program at Harvard" (Mcusic, 1999). What insurance is there that, one, the type of intervention chosen will be the most targeted at the organization's needs, and two, that the particular program chosen will be the best suited to achieve the learning objectives?

It is not surprising that the finance subsystem could consider the corporate training subsystem as a waste of business resources (Swanson, 1998). As the finance subsystem seeks to provide the organization with the best predictors of capital maximization, it sub-optimizes the human capital variable that corporate training is actively promoting. Thus, the tragedy of the commons is in full force. Given the complexities of an organizational system, no one simple viable solution is available. The area targeted in this paper to raise the consciousness of the reader, is the need for increased research in the area of evaluation of training. The corporate training subsystem can be goal-seeking, program-following, and self-stabilizing, but without the ability to be self-reprogramming by utilizing evaluation methods it loses leverage in competition with the subsystem of finance. Consequently, with lack of leverage, there becomes lack of financial sustenance from the host organization and without financial sustenance the corporate training subsystem cannot function.

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The Relationship between Workplace Training and Organizational Commitment in Australian Organizational Settings: A Preliminary Analysis.

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This study examines the relationship between workplace training and organizational commitment in four Australian organizations. A questionnaire was administered to staff at various levels in the hotel industry, automotive manufacturing, and non-profit organizations. Statistical results show a relationship between workplace training and organizational commitment. Qualitative data from semi-structured interviews with human resource managers support the empirical findings. Findings are discussed at the general level of practical application in Australian organizations and policy.

Keywords: Workplace Training, Organizational Commitment,

The National Training Reform Agenda (NTRA) was initiated in Australia in 1989 by the Commonwealth Labour Government to enhance the skills, productivity, and effectiveness of the Australian workforce (ANTA, 1994). After more than a decade of policy development and training related activities, NTRA no longer exists. Instead, the responsibility is placed on Australian organizations to create their own training culture (Wallace, 2000). Although workplace training is formalised at policy level, there appears to be inconsistency in the way in which it is operationalised and accepted in the workplace.

Bartlett's (2000) study of nurses in five public US hospitals has revealed that workplace training influences organizational commitment. He asserts that training can be viewed as a practice that can be managed to obtain organizational commitment. Workplace training and organizational commitment are two variables widely recognized as factors contributing towards organizational effectiveness (McMurray, Scott and Pace, 2000: Meyer & Allen, 1997). Whilst workplace training is viewed as an organizational mainstream function and an integral part of an organization's strategic direction (Graven and O'Donnell, 1997), organizational commitment is recognized as a central concept in the study of work attitudes and behavior (Allen and Meyer, 1997).

Few other studies have explored the relationship between workplace training and organizational commitment. This study attempts to advance an understanding of the relationship between organizational contexts, workplace training, and organizational commitment by examining four Australian organizations including profit and non-profit sectors.

Workplace Training

Workplace training is generally defined as a planned systematic effort to modify or develop knowledge, skills, and attitudes through learning experiences, to achieve effective performance in an activity or a range of activities (Garavan et al, 1995; Harrison 1993; Reid et al, 1994). Many of the definitions in the literature emphasize training on the current job focus. As an activity it appears to span many boundaries including on the job and off the job training, training for younger employees and adult employees, training for new employees, formal and informal training through work experience. According to Van Wart et al (1993) cited in Garavan, (1993), training is application driven and aims to impart skills that are immediately useful in particular situations.

Organizational Commitment

Organizational commitment has been defined as a measure of an individual's dedication and loyalty to an organization (Cohen & Kirchmeyer, 1995; Meyer and Allen, 1997). It is viewed as an important variable in

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facilitating the understanding of an employee's workplace behaviour (Bateman & Strasser, 1984) as its use has the potential to predict organizational outcomes such as performance, turnover, absenteeism, tenure, organizational goals (Meyer & Allen, 1997) and effectiveness (McMurray, 1999).

Meyer and Allen (1991,1997) identify the three components of organizational commitment as being affective, continuance and normative commitment. They define affective commitment as "Affective commitment refers to the employee's emotional attachment to, identification with, and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to" (Meyer & Allen, 1997, p. 11). Continuance commitment is defined as: "Continuance commitment refers to an awareness of the costs associated with leaving the organization. Employees whose primary link to the organization is based on continuance commitment remain because the need to do so" (Meyer & Allen, 1997, p. 11). The third component normative commitment is defined as: "Normative commitment reflects a feeling of obligation to continue employment. Employees with a high level of normative commitment feel that they ought to remain with the organization" (Meyer & Allen, 1997, p. 67). Of the three components, affective commitment is the most widely studied as it has consistent relationships with organizational outcomes such as performance, attendance, and retention (Meyer & Allen, 1997).

The Relationship between Workplace Training and Organizational Commitment

Literature on workplace training is not homogenous, nor is it clearly defined in definitional terms. Training as a concept is both complex and problematic. This is because workplace training is defined according to the perceptions of different researchers.

Workplace training is identified as a Human Resource Management (HRM) practice that contributes to an organization's competitive advantage (Schuler & MacMillan, 1984). Lang (1992) suggests that workplace training be conducted to attain deliberate organizational commitment outcomes. Bartlett's (2000) study of nurses in five public US hospitals has revealed that workplace training influences organizational commitment.

Legge (1995) asserts that organizational commitment is a complex phenomenon, which is intertwined with many factors, including an organization's culture, and more specifically with the organization's HRM policies and structure. Baruch (1998) agrees with Legge's (1995) assertion, but goes one step further and argues that organizational commitment is in need of review, as the concept is becoming redundant in the new era of Industrial Relations policies and Human Resource Management practices. Some outcomes of this new era are continual change, which involves organizational restructuring, and employee redundancy. In such a climate of change, Baruch's (1998) assertion, supported by Hirsch (1987) is that an employee's organizational commitment cannot be high when the organization's commitment to the employees is perceived as being low. This assertion is strongly countered by Meyer and Allen (1997), who argue that organizations are just becoming leaner and still need to retain a core of trusted and responsible employees, who are not only important but '*are the organization*' (p5). Meyer and Allen (1997) maintain that because these core highly skilled employees are integral to the functioning of the organization and are required to maintain the organization's competitive advantage.

Few studies have tested the complex patterns of relationships among antecedents, correlates and consequences of commitment (Mathieu & Zajac, 1990; Eby & Freeman, 1999), or workplace training (Bartlett, 2000). The authors found no Australian studies, which examined the relationship between workplace training and organizational commitment in either private or non-profit organizations.

Research Questions

In the past Australian training has been characterised by poor commitment from management, senior management in particular. This lack of commitment and understanding contributed to a paucity of appropriate and useful workplace skills, Australia desperately needed. This was confirmed by the Commonwealth Department of Employment, Education and Training (1991) who reported that much of the Australian industry did not see the need for training activities. The Karpin Report of 1995 further supported the general thrust of the 1991 report. However, the situation has changed today. In the last few years, the Federal Government has aimed at making its workforce more skilled, efficient and productive. Very seldom in politics, has there been such a dramatic shift in changing the image of the human resource development. Evidence of this shift can be seen in the changes at the policy level, in educational institutions, and in the workplace. It has paralleled, and been related to, the developments in award restructuring, enterprise bargaining and workplace agreements. It has also occurred in a climate of structural change in industry and in the labour market.

With this background, the study attempts to answer the question as to whether there is a relationship between workplace training and organizational commitment in Australian organizational settings and, if there is a relationship between workplace training and organizational commitment, does it vary in different contexts? These questions led to the two hypotheses tested in this study:

H1: There is a relationship between workplace training and organizational commitment.

H2: There is a relationship between context, type of workplace training and organizational commitment.

Research Methodology

The study adopted a multi-method approach in the collection of data. Samples were drawn from four organizations including two five star hotels, an automotive manufacturer, and a non-profit organization. The sample included employees working at different levels within these organizations. The formal structure of all four organizations was characterised as a bureaucracy where traditional line and staff roles were clearly defined thereby determining lines of authority and responsibility. The lines of communication, information and direction tended to cascade down from the top.

Sample and Procedures

A questionnaire was administered to employees across all organizational levels. The questionnaire contained fifty items divided into three sections. Section 1 sought work characteristics; Section 2, which comprised multiple choice and open-ended questions, sought information on perceptions of workplace training opportunities, frequency, motivation and views of workplace training; Section 3, consisted of questions with responses using a Likert type scale, addressed organizational commitment; and Section 4 requested demographic detail.

Data was collected from two five star hotels, 90 questionnaires were administered with 30 usable questionnaires returned, yielding a response rate of 33%. At the time of the data collection, the hospitality industry was busy with the 2000 Olympic games, this could explain the poor response rate. In the automotive manufacturing organization, 25 questionnaires were administered with 23 usable questionnaires returned, yielding a response rate of 92%. In the non-profit organization, 20 questionnaires were administered with 11 returned yielding a response rate of 55%.

From the above it can be seen that for any survey to yield maximum responses it is vital that the survey be conducted at an opportune time. The gender of the total population sampled was 56.5% male and 43.5% female where 73.9% were employed full time, 13% part -time and 13% as temporary staff. Of these percentages 17.4% belonged to the managerial category, 8.7 % belonged to the supervisory category, and 69.6% belonged to the worker category. Educational levels completed ranged from 21% VCE and below, 13% Certificate courses, 17% Diplomas, 39% undergraduates and 4. 4. 3% were postgraduates. Respondents who had experience in the workplace included 78% who had 0-3 years, 8.7 % 4-7 years and 8.7% 10 years and above. Over one-third of the respondents (34.8 %) were between 26-30 years of age. Semi-structured interviews were conducted with the four HR managers to gain an insight into the nature and degree of training being carried out in these organizations.

Measures

Section 2 contained seventeen questions related to workplace training. The questions reflected the degree of training provided by the organization to its employees, and asked, through multiple choice and open-ended questions the employee's view on training provided by their organization. Section 3 addressed Organizational Commitment employing the 24 item Allen and Meyer (1990) Organizational Commitment Questionnaire. Affective (Allen & Meyer, 1990, α=.86), Continuance (Allen and Meyer,1990, α=.79) and Normative (Allen & Meyer,1990, α=.89) components of the Organizational Commitment Questionnaire were measured. Responses utilised a five-point Likert type scale anchored in (1) 'Strongly Disagree' to (5) 'Strongly Agree'. The questionnaire was developed and then pre-tested with the group of four HR managers. This resulted in minor modifications to language, design and content of the questionnaire. Due to the small sample size (64), the two hypotheses were examined employing Pearson's correlation between workplace training and organizational commitment across the three different contexts, which were identified as automotive manufacturing industry, hospitality service industry and non-profit organization.

Semi-structured interviews were conducted with the Human Resource Managers in their organizations. The key questions asked were "What is the role of training in this organization?" "Can you describe the function of training in this organization?", and "How does this organization identify the training needs of its employees?" The qualitative data was category theme analysed (Sarantakos, 1993).

Results

Quantitative Data

Hypothesis 1, that there is a relationship between workplace training and organizational commitment, and hypothesis 2, that there is a relationship between context, type of workplace training and organizational commitment, were examined employing Pearson's correlation.

The Pearson's correlation between workplace training and organizational commitment in the three different industries revealed the following:

Table 1. Correlations between workplace training and variables of training in the automotive industry

Correlations

		training opportunities	Training Frequency	motivation for training	View on training
cumulative data across all categories	Pearson Correlation	.424	-.274	-.133	.092
	Sig. (2-tailed)	.090	.271	.637	.718
	N	17	18	15	18

In the automotive industry it was seen that training indicators, like training frequency and motivation for training, had a negative correlation with commitment. In other words, the less frequent the training programs in the workplace, the organizational commitment was lower amongst employees. The automotive industry in Australia employs a high percentage of blue-collar workers who have basic educational qualifications and have completed trade Certificate courses as part of their employment. Training in their view is an opportunity to grow within the Company and also acquire skills to seek jobs elsewhere if necessary. If the organization fails to provide opportunities for them to attend training, they see their management as not being attentive and the result is a negative impact on performance and commitment levels. The Pearson's correlation for training frequency was $r_{xy} = -.274$ and for motivation for training the Pearson's correlation was $r_{xy} = -.133$.

Table 2. Correlation between training variables and organizational commitment in the Hospitality Service Industry

Correlations

		training opportunities	Training Frequency	motivation for training	View on training
cumulative data across all categories	Pearson Correlation	.149	-.129	-.617**	.404*
	Sig. (2-tailed)	.496	.548	.002	.050
	N	23	24	23	24

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

In contrast, in the hospitality service industry, training frequency and motivation for training had a negative correlation with organizational commitment illustrated with Pearson correlation scores of $r_{xy} = -.129$ and $r_{xy} = -.617$. The hospitality industry in Australia is labour intensive and operates with a high percentage of temporary staff of between 40 and 50% at the lower levels of the organization such as Front Office or Housekeeping. Temporary staff include University students, who seek employment to cover their educational and living costs, and young people, who generally just work for the money. In both cases, the attrition rates are high. As a result, the motivation for these employees to attend training programs is relatively low, and secondly, with the increase in compulsion and frequency of training, it creates a 'false sense' of commitment. On the other hand, there was a positive correlation between employee's views on training and commitment. In other words, the greater the positive views on training, the greater the degree of commitment.

Table 3. Correlations between variables of training and organizational commitment in the Non-profit Organization

Correlations

		training opportunities	Training Frequency	motivation for training	View on training
cumulative data across all categories	Pearson Correlation	-.737	-.781*	.367	.235
	Sig. (2-tailed)	.059	.022	.371	.575
	N	7	8	8	8

*. Correlation is significant at the 0.05 level (2-tailed).

In the non-profit organization, Pearson's correlation of r_{xy} = -737 for training opportunities and r_{xy} = -.781for training frequency was revealed. Thereby showing training opportunities and training frequency had a negative correlation with organizational commitment. This shows that the lesser the frequency of training and lesser the opportunities provided for employees, the lesser is the organizational commitment.

Qualitative Data

The qualitative data from the four semi-structured interviews with the Human Resource managers was category theme analysed. The analysis revealed that the automotive industry Human Resource Manager perceived that the organization took a highly structured approach to workplace training. In contrast, the results from the hospitality and non-profit HR managers revealed that they perceived there was no structured approach to workplace training in their organizations. The qualitative results above were supported by the following comments.

Automotive Industry:

- HR and departmental heads regularly identified training needs as part of the performance appraisal system. In addition HR regularly surveyed employees as to their perceived workplace training needs.
- This company invests in employee workplace training and allocates between AUD$8,000 and AUD $10,000 per year for each employee.

Hospitality Service Industry:

- Training is one of the most neglected activities of the HR function.
- Our employees are expected to request training when they feel the need.
- A structured approach to training? You have got to be kidding…if you think we are going to do a training needs analysis, who's got the time anyway?

Non-Profit Organization:

- There is little or no workplace training around here because the requirement for such training is linked to the availability of funds.
- Every time I put up my hand to look at employee training and development I am shrugged off saying "We don't have the money to invest in training".

Conclusions

Hypothesis 1, that there is a relationship between workplace training and organizational commitment, and hypothesis 2, that there is a relationship between context, type of workplace training and organizational commitment, were statistically confirmed. Analysis from the qualitative data from Human Resource Managers shed further light on these findings and was congruent with the empirical findings.

Interviews with the Human Resource Managers revealed that workplace training was seen differently in the various contexts. For example, the Human Resource Manager in the automotive manufacturing industry viewed workplace training as an important component in the automotive manufacturing organization. However, she felt the workplace training did not give the organization the desired organizational outcomes due to the employee's perception that management drove the workplace training agenda instead of the employees themselves. The Human Resource Manager in the hospitality service organization stated that workplace training was needs based and conducted upon employee request. However, orientation training was compulsory to all employees when they joined the hospitality service organization. The Human Resource Manager in the non—profit organization stated that workplace training was seen more as needs based function rather than seen as the organization's commitment towards employee development.

The results in this study indicate there are inconsistencies between the NTRA policy and the way in which it is implemented in four Australian organizations, specifically in the hospitality service industry, automotive manufacturing industry, and the non-profit sector that operate with a bureaucratic structure. The results support Bartlett's (2000) study that there is a relationship between training and organizational commitment. More specifically, the results show that workplace training and organizational commitment are context specific and vary from one organizational context to another. Therefore, one could infer that organizational culture, which is specific to each organization (McMurray, 1993; 1999; Sackmann, 1997; Schein, 1992), plays a role in the relationship between workplace training and organizational commitment.

The findings in this study challenge Baruch's (1998) and Hirsch's (1987) assertion that organizational commitment is becoming redundant in the era of Industrial Relations policies and Human Resource Management practices. All four organizations were undergoing some form of restructuring and change, yet commitment was still a varying factor in each context.

The results of this study contribute to the literature by uncovering the complexity of the relationship between workplace training and organizational commitment in different organizational contexts and industries thereby showing that the relationship between the two concepts is context and industry specific.

Implications for Human Resource Development

The preliminary findings in this study show that Australian organizations, specifically the automotive manufacturing industry, hospitality service industry, and the non-profit sector have a role to play in the implementation of NTRA policy to enhance their employees' organizational commitment.

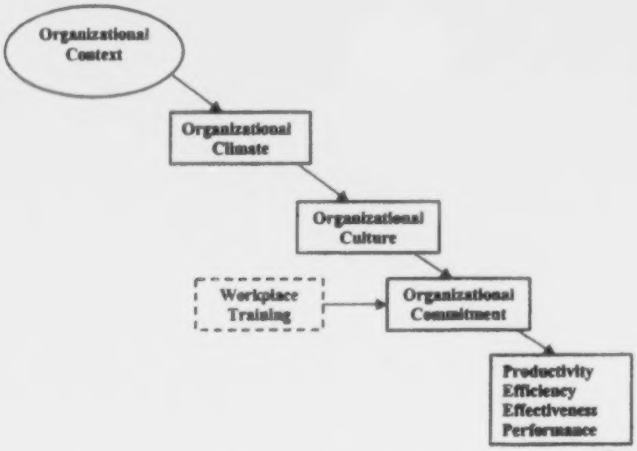
Whilst workplace training, a human resource practice, is formalized at the national level through policy, reality exists that there is often a gap when examining workplace training in our organizations. That is, even after more than a decade of workplace training policy, it is evident that there is a gap between the theory and the practice of workplace training. In order to lessen this gap, those in power to make workplace training decisions would benefit by creating a workplace training culture (Wallace, 2000) accessible to employees at all levels. This would result in increasing their employees' organizational commitment resulting in improved workplace attitudes and behaviours such as increased productivity and effectiveness (McMurray, Scott & Pace, 2000), and reduced absenteeism and turnover (Bartlett, 2000). This supports Elsey (1997) who asserts that organizations need to emphasise commitment to the development of their employees in order to survive in today's continually changing environment.

The literature reveals a relationship between the concepts of organizational culture and climate (Denison, 1996; McMurray, 1993) and that there is a positive correlation between organizational climate and organizational commitment (McMurray, Scott and Pace, 2000). Legge (1995) asserts that organizational commitment is intertwined with organizational culture. These concepts have been linked to organizational productivity, efficiency, effectiveness and Performance (Denison, 1996; Legge, 1995; McMurray, 1993;McMurray, Scott and Pace, 2000; Meyer & Allen, 1997). Therefore, the following proposed theoretical framework, in the form of a causal model, is viewed as a management tool rather than as a research paradigm. It shows the multivariate relationship between workplace training and organizational commitment and its relationships to possible organizational outcomes.

It could be surmised that the organization's commitment to their employees influences the employee's commitment to the organization. One way to foster an employee's organizational commitment would be for leadership to actively demonstrate their commitment to the employees through Human Resource Development practices such as workplace training.

Finally, due to the small sample size (64) the range of statistical analysis approaches was limited. Any future studies would require a larger sample size so that more sophisticated statistical analysis could be employed.

Finally, a longitudinal study would show more accurate trends in the relationships between the various aspects of training and organizational commitment.



Source: Adapted from McMurray (1999)

Figure 1. Causal model of Organizational Context, Workplace Training, Organizational Commitment, Organizational Climate, and Organizational Culture.

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The Relationship between Factors Impacted by the Current Economic Crisis and Human Resource Development Roles and Functions in Thailand

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This study examined the relationship between factors impacted by the current economic crisis and HRD roles and changes in HRD roles and functions. Results showed: The economic impact on technology was the only variable in regression analysis significantly related to changes in HRD roles. However, this result has little practical significance. There has been not much change in HRD roles and functions.

Keywords: Global HRD, Thailand HRD, Roles and Functions

Thailand has been in an economic crisis since 1997. After two years of financial turmoil and suffering, the economy has finally begun to show signs of recovery (Bunyamanee, 2000). However, questions remain "whether Thailand's steps to recovery will be sustainable for the long run" (Bunyamanee, 2000, p. 6).

The current economic crisis has been an outcome of failures in country development over the past decade. One of the roots of the current crisis is a lack of human capital development (McLean, 1998). Thailand has been seeking to maintain its export competitiveness as it transforms from an economy based on labor-intensive manufacturing to one of high-skilled, technologically sophisticated production (World Bank Group, 1997). Therefore, the quality of its infrastructure and labor is critical. Thailand's shortage of skilled labor in the high-tech industry is, in part, the result of deficiencies in secondary education (World Bank Group, 1998). Human resource development (HRD) could be a key function in increasing production and closing the gap between the level of worker skill and present and future needs in order to maintain competitiveness during the economic crisis.

Problem Statement

HRD functions in Thailand have been obscure as they have been a part of personnel or human resource management (HRM) departments. However, a transformation is now occurring (Varanusantikul, 1995). Training managers have become HRD managers (Punnitamai, 1993). Moreover, academics in personnel management have changed their department names to HRM and HRD. Understanding how HRD professionals do their work is critical, especially during the current economic crisis. HRD roles and functions become an issue when the budget is tight, as, to compete in the global market, companies have to depend on the quality and level of HRD in the organization (Marquardt & Engel, 1993). Three questions emerged from this background.

First, what is the role of HRD--service deliverer or strategic? Kuchinke (1996) suggested that HRD should step out of its traditional role as a training provider and propose strategies to develop skills, abilities, and knowledge in technical, social, and interpersonal areas. Second, should HRD departments exist as they have, be transformed, or disappear? Outsourcing HRD may be a trend as a way to reduce headcount, reduce manufacturing costs, and improve quality (Harkins, Brown, & Sullivan, 1996). Third, who should play HRD roles in the organization--HRD professionals or line managers?

In 1999, Akaraborworn and McLean (2001) interviewed five HRD scholars and five HRD practitioners in Thailand to examine whether and how HRD roles and functions were impacted by the current economy. During the economic boom, HRD had worked more in service delivery than in strategy. During the economic crisis, there was same expectation that the strategic role would increase and many HRD roles would be more important. In contrast, others reported that line managers were being encouraged to perform some HRD functions, while HRD persons were performing their role as business partners. Some expected outsourcing to perform more efficiently. To support or challenge these qualitative conclusions, positivistic research is needed.

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From an international perspective, HRD has a close link to the economy. For example, in Singapore, HRD has been a key strategy for economic growth since its early beginning (Osman-Gani & Tan, 1998). In Japan, long-term-focused training and development has been provided for employees to enhance their capabilities in companies (Harada, 1999).

HRD has been proposed as a focus in Thailand's present National Plan, perhaps leading to changes in HRD roles. Updating HRD roles is needed, but no research in this area currently exists. This study will explore the question: How does the current economic crisis impact HR managers' perceptions toward HRD roles and functions in Thailand? Five HRD roles and thirteen functions were tested in this study (as described later).

Purposes of the Study

The purpose of this study is to improve HRD practice by examining the: 1) relationship between factors impacted by the current economic crisis and HRD roles, and 2) changes in HRD roles and functions.

Significance of the Study

This study contributes to the HRD profession in Thailand with: 1) an improved understanding of HRD roles and functions; 2) a guide to practice and academic preparation for HRD professionals by informing academics of the critical components to include in an HRD curriculum; and 3) a benchmark for executives to use in improving their company policies relative to HRD roles.

Research Questions

The following questions were addressed: 1) What is the relationship between factors impacted by the current economic crisis and HRD roles? and 2) How much have HRD roles and functions changed since the economic crisis began in 1997? The literature review supports the importance of these two questions.

Literature Review

During the last three years, many companies have closed, downsized staff, and restructured (Bunyamanee, 2000). The Personnel Management Association of Thailand (PMAT) Annual Report showed a decrease in members from 873 private sector companies in 1997 to 773 private sector companies in 1998. In addition, the crisis has led to mass lay-offs in a number of industries, such as textiles and garments. The Bank of Thailand (2000, February 29) reported an unemployment rate of 4.4% in 1998 and 4.2% in 1999. These unemployment rates are almost triple the unemployment rate of 1.5% during the economic boom in 1996. This unemployment rate is considered high for Thailand because the government does not have any fallback system for jobless people.

Despite major layoffs, it is hard to recruit skilled people in many fields. Many potential workers will not be accepted in factories producing medium to high-technology products and in the modern service sectors (hotels, department stores, and finance), as these typically require workers with secondary or vocational education. On the other hand, the production base for labor-intensive manufactured products will continue to shift to countries with lower per-capita income levels than Thailand, such as China, Indonesia, and Vietnam (Toews & McGregor, 1998). Thus, the Thai economy has been pressured by external forces (global competition and international standards) and internal forces (lack of higher education and skilled laborers).

During the economic boom, some companies provided more training than they needed. It was quite popular for private firms to provide off-the-job training (Phananiramai & Tonguthai, 1994). In Thailand, training has had more meaning than performance improvement (Holmes & Tangtongtavy, 1997). It can be prestigious or a bonus for employees. Thus, it is difficult to make a link between training and performance improvement. However, the skill training budget compared to the formal education budget is very small (Pitayanon, 1995). And, while many OD interventions have been imported, especially from the U.S. and Japan, many did not work well in Thai organizations because of the culture (Kind, 1997). Change could be seen as the failure of management, causing a loss of face.

Methodology

Population and Sample

The population was the 773 private sector company members, Thai and multinational, of the Personnel Management Association of Thailand (PMAT) in 1998. A stratified proportionate random sample of 255 companies was selected, based on a confidence level of .05 with an anticipated response rate of 60% (Brown, 1986).

Instruments

A questionnaire was developed to integrate the literature review and interviews (Akaraborworn & McLean, 2001). The HRD roles and functions were determined mainly from McLagan's (1989) eleven roles. The interviews showed that some HR managers in Thailand performed these eleven roles as a coordinator, some as a business strategist. Moreover, in some cases, these roles were performed by supervisors or external HR persons.

Thus, role was defined as a related set of work activities within a job, which transcends jobs and has a core identity within a discipline or profession (Chalofsky & Lincoln, 1983). Role has a broader meaning than function: "a group of related activities that contribute to the performance of work by an organization" (French & Saward, 1975, p. 169). Most of McLagan's (1989) roles were subsequently defined as functions in the questionnaire.

The literature review and interviews suggested that, in Thailand, HRD has five roles:

- Service deliverer is the role of taking action in HRD programs.
- Administrator is the role of managing and organizing the company's HRD affairs, coordinating and supporting the delivery of HRD programs and services.
- Strategist is the role of working with top managers to align HRD with business strategies.
- Business partner is the HRD role transferred to others with HRD service, support, and advice, e.g., supervisors take responsibility for improving subordinate knowledge, skill, attitude, and quality of work life.
- Outsourcing is the role that external HRD persons do for the organization.

McLagan's (1989) HRD manager role was dropped because its meaning was similar to the administrator role. Based on the interviews, the instructor and facilitator roles were separated, and the instructor role was renamed trainer. Preparing employees for future tasks was included in the questionnaire, as this role emerged from the interviews and literature review. Providing training and development (T&D) activities and developing T&D activities functions were added to cover all of the HRD functions. There were five HRD roles and thirteen functions included. The 13 HRD functions were: provide T&D activities, analyze T&D needs, design T&D activities, develop T&D activities, develop T&D materials, train the employees, facilitate T&D activities, evaluate T&D activities, market T&D activities, develop the organization, provide career development (CD), research HRD programs, and prepare employees for future tasks. Because there was no existing information to determine which functions would occur within which role, it was decided to list all 13 functions under each of the five roles.

The factors impacted by the current economic crisis (or vice versa, as causality was not known) were grouped into four categories--company status, market forces, work process, and technology. Three questions were written for each variable, for a total of twelve questions.

Validity. Content validity and face validity were used in this study. The ten experts who participated in the interviews and two HRD instructors at the National Institute of Development Administration (NIDA, the school with the only Thai graduate level HRD degree at the time of the study) participated as subject matter experts. In addition, twenty HR managers who were randomly selected from the population participated in a pilot study. All responded to relevance and wording. The draft questionnaire was modified based on this input.

Cross translation. Cross translation was used to ensure equivalence between the Thai and English versions.

Reliability. The instrument's reliability was based on all survey respondents using Cronbach alphas. The first section--factors impacted by the current economic crisis--had 12 questions, and yielded a moderate Cronbach alpha of .79 (Borg & Gall, 1989). The market forces and technology sections also had moderate reliabilities of .81 and .85. Company status and work process had low reliabilities (.61 and .55), suggesting caution in interpreting these results. The second section, HRD roles and functions, had 65 items with a coefficient of .98 that was highly reliable. Each of the five HRD roles had 13 items, all with high reliabilities: .93-.95. The functions (with five roles each) yielded reliabilities that were moderately to highly reliable (.80-.93). The requirements for factor analysis were not present because of the length of the questionnaire and the small number of respondents. Thus, factor analysis was not used.

Data Collection and Analysis

In November, 1999, all questionnaires were mailed to the HR managers of the 255 companies. The response rate two weeks after the first mailing was 40.2% (97 completed of 241 delivered). To reach the 60% response rate goal, phone calls were made, and 112 questionnaires were mailed a second time in December. An additional 53 completed questionnaires was received, for a total response rate of 62.2%.

The purpose of the first question was to determine the relationship between factors impacted by the current economic crisis (as independent variables) and the five HRD roles. Multiple regression was used. The independent variables consisted of the sum of the three Likert-type questions.. Tests were conducted at the .05 significance level. The purpose of the second question was to describe changes in the HRD roles and functions from before the economic crisis to during the economic crisis. Frequencies were calculated and rank ordered to determine changes.

Findings

Factors Impacted by the Current Economic Crisis

HR managers (n = 150), on a 5-point scale, perceived that market forces ($\underline{X}$ = 3.94, $\underline{SD}$ = 0.74) and technology ($\underline{X}$ = 3.92, $\underline{SD}$ = 0.76) had been impacted the most in their companies by the economic crisis. They perceived company status ($\underline{X}$ = 1.93, $\underline{SD}$ = 0.84) to have been impacted little, while work process was also perceived to have been impacted ($\underline{X}$ = 3.62, $\underline{SD}$ = 0.77).

Based on the regression analysis, the effect of the economy in the four areas identified was statistically significant on each of the HRD roles except outsourcing. However, the largest R^2 was only 0.17 for service deliverer, indicating that much of the variance was still not accounted for.

Only the impact of the economy on technology was significantly related to changes in the HRD roles, and the impact of the economy on technology predicted each role. As the relationship between technology impacted by the economic crisis and HRD roles increased, the changes increased in each of the five HRD roles.

Changes across HRD Roles and Functions

Table 1 shows the rank-ordered averages based on a 7-point scale, with 1 meaning "much less emphasis" and 7 meaning "much more emphasis." HR managers perceived that all roles have been emphasized about the same as in the past, with $\underline{X}$s of 4.36, 4.86, 4.82, 4.87, and 4.74, respectively, for outsourcing, service deliverer, administrator, strategist, and business partner.

Among the thirteen functions under the service deliverer role, there are three functions--provide training and development, develop T&D activities, and training the employees--that have been emphasized more than in the past (X = 5.37, 5.31, and 5.29, respectively). The rest have been emphasized about the same as in the past (Xs ranged from 4.53-4.98). Under the administrator role, four functions--provide training and development, develop T&D activities, train the employees, and market T&D activities--have been emphasized more than in the past (X = 5.31, 5.04, 5.13, and 5.01, respectively). The rest have been emphasized about the same as in the past (Xs ranged from 4.38-4.94). Under the strategist role, six functions--provide training and development, design T&D activities, develop T&D activities, train the employees, market T&D activities, and develop organization--have been emphasized more than in the past (X = 5.30, 5.04, 5.11, 5.06, 5.12, and 5.17, respectively). The rest have been emphasized about the same as in the past (Xs ranged from 4.47-4.96). Under business partner, only two functions--design T&D activities and evaluate T&D activities--have been emphasized more than in the past (X = 5.08 and 5.03). The rest have been emphasized about the same as in the past (Xs ranged from 4.46-4.99). Every function under the outsourcing role has been emphasized about the same as in the past (Xs ranged from 4.16-4.79). There are eight functions--analyze T&D needs, design T&D activities, develop T&D materials, facilitate T&D activities, evaluate T&D activities, provide career development, research HRD programs, and prepare employees for the future tasks--for which most HR managers perceived that outsourcing had never been performed (Mode = 0).

Table 1 shows that "provide training and development function" has been emphasized more than in the past, and it was ranked first among the four HRD roles: service deliverer, administrator, strategist, and outsourcing, and it ranked third under business partner role. Prepare for future tasks, develop T&D materials, and research HRD programs were ranked the lowest across the five HRD roles.

Discussion

Factors Impacted by the Current Economic Crisis

Company status was rated very low among the factors impacted by the economic crisis in influencing HRD roles. Companies that had trouble with their status--being merged with another company, having difficulty with cash flow, or being downsized--may not have been included in the study. Actually, there were about 100 fewer companies in the PMAT Annual Report in 1998 than in 1997. Only the economic impact on technology was determined to influence changes in the five HRD roles. HRD roles become more important when companies have to keep pace with new technologies, are more innovative, and need a higher level of skill in their workers to keep up with advanced technology. Providing training and development was one way that companies could handle the high demands for skilled labor to work with advanced technology. The findings support Goad's (1988) conclusion that the nature of the field has been driven by technology and rapid growth. However, while the relationship between economic impact on technology is statistically significant related to changes in HRD roles, the correlation is low. Practically, the impact of the economy on technology has little relationship with changes in HRD roles.

Changes in HRD Roles and Functions

HRD roles. HR managers perceived little change in the HRD roles. Outsourcing was perceived as changing the least in emphasis. These results are somewhat different from Tienput and Associates (1998). Tienput et al. selected twenty experts to participate in a Delphi study to explore HRM in 2007. They concluded that subcontractors would be hired because they could save companies costs, and they could be more efficient. In addition, Tienput et al. concluded that HR should perform more in strategic planning. Yet, there was no evidence of either of these findings in this study. This is supported by Jantra (1998), in the Electricity Generating Authority of Thailand (EGAT), who found that HRD practitioners did not participate in strategic planning.

HRD functions. HR managers perceived that there have been only slight changes in the thirteen HRD functions. Providing training and development was ranked first, however, under four of the five HRD roles. Nadler (NIDA, 1990) recommended more training during a time of crisis because it can contribute immediate outcomes for companies. He also said that education and development might be less important during a bad economy due to delayed outcomes. However, the survey results showed that there was not much change in organization development and preparing employees for future tasks. Chuensuksawadi (1998) studied the foreign investment of thirty-five multi-national companies in Thailand and found that these companies still invested in training after the crisis.

The survey results also showed that providing training and development and training employees ranked third under the business partner role in the survey. However, these two functions have been emphasized only slightly more than in the past. Ellinger, Watkins, and Barnas (1996) found that managers did not want to be instructors because they never have enough time to do it, and this job was not a priority for them. Moreover, they lacked teaching skills to do this job, and there was no support for them to perform this role.

Designing and evaluating T&D activities are two other functions that have been emphasized slightly more than in the past under the business partner role, and these two functions are ranked first and second under this role. These roles are expected to be a cooperative role between HRD and supervisors. HR managers perceived that the design function has not been performed by outsourcing, and it has been emphasized about the same as in the past. Thus, there has been little change in this function.

Developing the organization (or OD) is the other function that has been emphasized slightly more than in the past, but under the strategist role only. Internal HRD persons have been expected to perform OD functions more strategically. The success of OD will also depend on the knowledge and skills of HRD persons in the company, and OD is not yet well established in Thailand.

Preparing for future tasks, developing T&D materials, and researching HRD programs were ranked less than 10th in the survey across all HRD roles. These functions have not been a priority for either internal or external HRD. In addition, the survey showed that they have been emphasized about the same as in the past. Moreover, the majority of HR managers perceived that these three functions have not been performed by outsourcing.

Preparing employees for future tasks has not been seen as the company's responsibility, but the government's or the employees'. The government budget is still the most important source of finance for formal education (Pitayanon, 1995). On the other hand, employees are willing to invest in formal education even though they do not directly benefit much from that qualification (Ananvoranich, 1998). Thai people value knowledge or formal education as a means of upward social mobility. Thus, this function might not be seen as an HRD function. Moreover, the crisis may force people to think of survival, which is more short term.

Developing T&D material is the other HRD function that has not been seen as a priority. Moreover, researching HRD programs is an HRD function that has not been performed at all. McLean (1998) saw a shortage of an indigenous research base as a problem for the HRD field in Thailand. Without a research base, HRD can be costly. However, HRD persons might not have the knowledge and skills to do this function. On the other hand, they might not get enough support from the company to perform this function. Indeed, research needs both time and financial support to perform this function.

Conclusions

First, changes in HRD roles could be predicted by the economic impact on technology only. The other factors of economic impact did not have statistical significance in this study. However, the correlation between the economic impact on technology and the changes in HRD roles was low. In terms of practical significance, HRD roles have not changed much because of the economic impact on technology during the time of the crisis. Second, the survey results showed no change in the outsourcing role during the current economic crisis. Third, the strategist role has been emphasized only slightly more than in the past. Thus, there was no sign that HRD has been more strategic during the current economic crisis. Fourth, the training and development function has been a priority task for HRD and continues to be so during the economic crisis. Fifth, preparing for future tasks, developing T&D materials, and researching HRD programs have not been priorities for HRD and have been emphasized during the economic crisis about the same as in the past.

Recommendations

Recommendations for Practice

1. Because the economic impact on technology is related to HRD roles during the current economic crisis, HRD persons may need to consider whether they provide sufficient support to help employees keep pace with advanced technology. HRD persons also might consider if they are performing their role adequately to improve company productivity with the integration of technology in order to compete in the world market during the economic crisis.
2. The outsourcing role has not changed during the economic crisis. This role may be able to save the companies money if it is performed more effectively and more efficiently. Due to the tight budget during this time of economic crisis, outsourcing companies might accomplish more with lower costs. To do this, however, they may need to customize HRD programs and be results-oriented to show more critical outcomes that can be measured.
3. The survey indicated that providing training and development has been seen as a priority for HRD, and it has been emphasized slightly more during the economic crisis, even when the companies' budgets have been tight during the economic crisis. Therefore, educational institutions might provide knowledge and skill for people in this field to perform this function more professionally.
4. The business partner role has been slightly more emphasized during the crisis. Supervisors are expected to take some responsibilities for doing HRD work. HRD may need to provide support and companies may need to provide enough incentives for these supervisors to perform these HRD roles.

Recommendations for Research

1. This study has focused on HRD roles and functions in the private sector only. A similar study could investigate the perceptions of HRD practitioners from other types of organizations, such as state enterprises and family businesses, and from other group members, such as line managers.
2. This study focused on the impact of the current economic crisis only. No demographic data were collected in this study. If a similar study is conducted, demographic variables, such as size of company and nationality of company ownership, would be useful.
3. The current economic crisis has occurred not only in Thailand, but in many countries in Asia. Thus, a similar study could be conducted in other Asian countries and comparisons made.
4. There is a limitation of information by using a survey to collect data. More open-ended questions and in-depth interviews could add more explanation for future study.
5. An in-depth study of HRD roles and functions during the current economic crisis could be done through the case study method.
6. A follow-up study of HRD roles and functions could be undertaken once the economic crisis has disappeared to determine if the information gathered in this study will change.

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Table 1. Ranking of Function Means across HRD Roles

Rank #	Service Deliverer	Administrator	Strategist	Business Partner	Outsourcing
1	Provide training and development (5.37)	Provide training and development (5.31)	Provide training and development (5.30)	Design T&D activities (5.08)	Provide training and development (4.79)
2	Develop T&D activities (5.31)	Train the employees (5.13)	Develop organization (5.17)	Evaluate T&D activities (5.03)	Design T&D activities (4.68)
3	Train the employees (5.29)	Develop T&D activities (5.04)	Market T&D activities (5.12)	Provide training and development and train the employees (4.99)	Market T&D activities (4.66)
4	Evaluate T&D activities (4.98)	Market T&D activities (5.01)	Develop T&D activities (5.11)	Develop T&D activities (4.94)	Facilitate T&D activities (4.62)
5	Analyze T&D needs (4.92)	Develop organization (4.94)	Train the employees (5.06)	Develop organization (4.92)	Develop organization (4.42)
6	Design T&D activities (4.88)	Evaluate T&D activities (4.87)	Design T&D activities (5.04)	Facilitate T&D activities (4.84)	Analyze T&D needs (4.40)
7	Facilitate T&D activities (4.82)	Analyze T&D needs (4.83)	Analyze T&D needs (4.96)	Provide career development (4.79)	Provide career development (4.35)
8	Develop organization (4.80)	Provide career development (4.78)	Provide career development (4.88)	Analyze T&D needs (4.70)	Train the employees (4.31)
9	Market T&D activities (4.73)	Facilitate T&D activities (4.77)	Develop T&D materials (4.78)	Market T&D activities (4.58)	Evaluate T&D activities (4.29)
10	Prepare for future tasks (4.68)	Design T&D activities (4.75)	Evaluate T&D activities (4.74)	Research HRD programs (4.57)	Develop T&D materials (4.26)
11	Develop T&D materials and research HRD programs (4.59)	Develop T&D material (4.64)	Research HRD programs (4.70)	Prepare for future tasks (4.47)	Prepare for future tasks (4.18)
12	Provide career development (4.53)	Prepare for future tasks (4.53)	Facilitate T&D activities (4.57)	Develop T&D materials (4.46)	Research HRD programs (4.17)
13		Research HRD programs (4.38)	Prepare for future tasks (4.47)		Develop T&D activities (4.16)

Testing the Appropriateness of the Gap Service-Management Model to the HRD function in Organizations

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This study tested the appropriateness of the Gap Service-Management Model, which is an adaptation of the Gap Model widely used in the service quality literature. The Gap Service-Management Model attempted to gauge employee satisfaction with the HRD outcomes based on a series of gaps that occurred during the delivery of an HRD service.

Keywords: Management of HRD function, Service Quality, Internal Service

In general, the literature related to management of HRD has been characterized by three major questions: 1) what are the competencies of those involved in the HRD function? 2) How should the HRD function represent itself to other parts of the organization? 3) What should be the preferred activities of the HRD function? In response to the first question, research has sought to identify the competencies of the various HRD job roles (Eubank, Marshall & O'Driscoll, 1990; Hale, 1991; McLagan, 1983; Rothwell, 1999; Tracey, 1984). Underlying this research is that HRD effectiveness is determined, to a large extent, by the competency of the individuals involved. However, beside HRD staff competencies, there are other relevant variables that influence HRD effectiveness such as inter-functional relationships. To address the second question, Gilley (1998) suggests framing HRD within a general marketing model. Assuming that if clients are more informed about HRD services, they will more likely take advantage of those services. The marketing approach proposes a strategic-marketing planning process tailored to customer needs, which would ultimately improve HRD's credibility and image among the stakeholders. The marketing perspective has helped HRD professionals to switch from a reactive to a proactive mode.

Finally, the third research question relates to the preferred activities of the HRD function, namely performance improvement. The performance improvement approach, based on the writings of Jacobs (1989), Swanson (1995), and Rummler and Brache (1995), among others, asserts that HRD must consider the entire performance environment and aim at achieving specific performance requirements. Furthermore, this stream of research emphasizes partnerships with internal functions for a measurable performance improvement as the end-result of the HRD intervention (Swanson & Holton, 1999; Brinkerhoff & Gill, 1994). The performance approach, by far, has made the greatest contribution to the field by pressing HRD managers for measurable outcomes.

Problem Statement

Although each of the three perspectives has done much to advance the field of HRD, it is suggested that a more integrated approach may be required to improve the management of HRD functions in organizations. Given the recent emphasis on meeting customers' needs in regards to other organizational functions, the relationship between the HRD function and its internal customers as well as a way of assessing satisfaction with HRD outcomes need to be further scrutinized. HRD as an internal business function has customers, referred to as constituents or clients, who are users of its services and products.

If HRD functions are to continue to help improve the performance of their customers and if the present literature on managing HRD functions does not give clear guidelines on how HRD as an internal service provider can facilitate its relationship with its customers, then more needs to be known. Unfortunately, no service quality models specifically focus on the HRD function and its effectiveness, suggesting that an existing model, such as the gap model, might be adapted for use in this instance.

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Theoretical Framework

The service quality literature has contributed to the understanding of an organization's relationship with its customers. Strengthening relationships with internal customers improves relations with external customers (Heskett, 1987). The satisfaction of external customers with a firm's product or service is the outcome of excellent teamwork and close, cooperative relationships among internal units in the organization (Bfau, Detzel, & Geller, 1991). In general, the service quality literature proposes the integration of operations, marketing, and human resources to better serve the customer (Collier, 1994). Similarly, in the context of this study, the three perspectives of competency, marketing and performance improvement can be integrated into one framework conceptualized by the service quality paradigm.

Although several models of service quality are available in the literature (Bitner, 1992; Gronroos, 1984; Lewis, 1989), the gap model has emerged as being especially influential (Parasuraman, Zeithaml & Berry, 1985, 1988, 1991). The gap model, originating from consumer behavior research, seeks to understand service recipients' expectations and compare those expectations with their perceptions of the service experience. The closer the actual performance comes to expectations, the smaller the discrepancy (gap) between perceptions and expectations, and the greater the satisfaction of the customer (Kittenger & Lee, 1994). Figure 1 presents the theoretical framework for the study, demonstrating the location of the various gaps of interest.

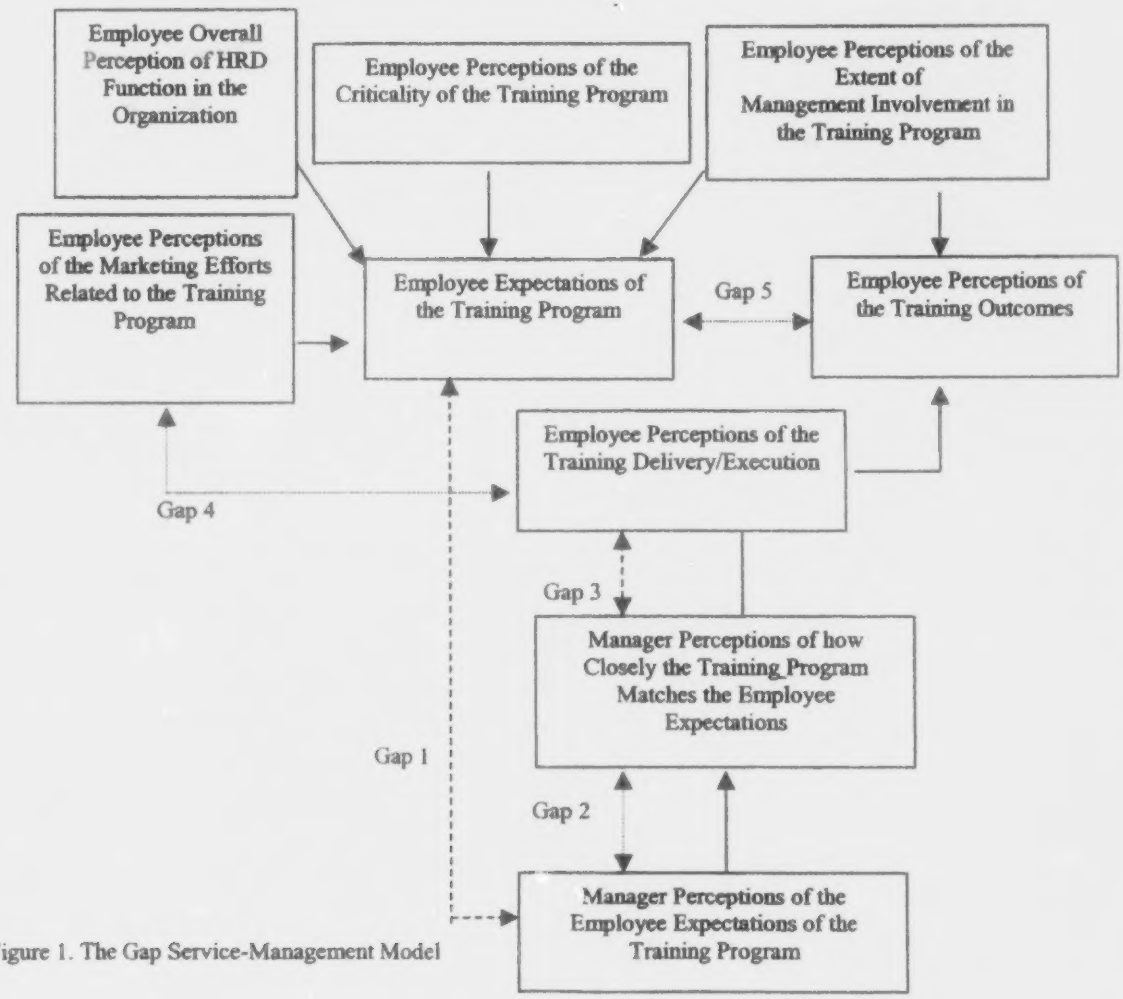
Employee Overall Perception of HRD Function in the Organization
Employee Perceptions of the Criticality of the Training Program
Employee Perceptions of the Extent of Management Involvement in the Training Program
Employee Perceptions of the Marketing Efforts Related to the Training Program
Employee Expectations of the Training Program
Gap 5
Employee Perceptions of the Training Outcomes
Employee Perceptions of the Training Delivery/Execution
Gap 4
Gap 3
Manager Perceptions of how Closely the Training Program Matches the Employee Expectations
Gap 1
Gap 2
Manager Perceptions of the Employee Expectations of the Training Program

Figure 1. The Gap Service-Management Model

The model operationalizes customer satisfaction by a series of gaps that may occur during the planning and delivery of the service. Again, in the context of this study, the training service is selected as an example of the HRD function in organizations. One particular training program serves as a proxy for all the HRD activities in the organization.

Research Questions

The following were the research questions addressed in the study:

1) Is there a significant difference between employee expectations of the training outcomes and employee perceptions of training outcomes? In other words, is the employee satisfied with the training outcomes?
2) To what extent is the change in employee satisfaction with the training outcomes (Gap 5) explained by a series of gaps that may occur in the training process (Gaps 1-4)? In other words, to what extent is the change in employee satisfaction with training outcomes explained by a series of perceptual gaps?

Methodology

The design of this study was an ex post facto design. The target population for this study was the employees who were trained in a specific corporate-wide training program of a large service company in the Midwest. Mail surveys from both managers and their employees were used as means of collecting data. A manager, in order to be included in the sample, had to have a title of director or below and had to have managed at least four people whom he or she had trained in Performance Management Process (PMP) training program. PMP was a corporate-wide training program aimed at facilitating the transformation of the organization's culture to a high-performance culture. PMP, when properly implemented, would result in aligning employees' individual objectives with those of the unit and ultimately the corporation. The outcome of PMP training had a direct impact on employee's pay.

Four employees per manager, identified from the organizational chart, were randomly selected. The data for both subsidiaries were combined since no significant difference was found among the variables in question between the two subsidiaries. A pair of 21 managers and their employees' response was used for the gap analysis since the rest of the respondents' data could not be matched. Each of the five gaps were measured by finding the difference among the scores of parallel statements in the scales representing those constructs which were proposed to cause gaps in the training process. The gaps were then compared using a paired t-test. Once the gaps were identified, then a multiple regression analysis was conducted to test the proposed hypotheses.

The instruments were developed after a thorough review of the internal service, professional service and training literature. The instruments went through several lengthy revisions by scholars as well as practitioners from the sponsoring organization as well as outside the organization. Some changes were then incorporated to both instruments based on the results of the pilot study prior to mass mailing of the surveys. The data collected on seven-point scales with 1 for "strongly agree" to 7 for "strongly disagree". The Cronbach's alphas for the manager survey were .95 and .96 whereas the Cronbach's alpha for the employee survey ranged from .88 to .98.

Another measure of internal consistency was the results of the factor analysis for both instruments. Each scale within each instrument was factor analyzed individually to ensure that the scale represented one underlying concept. The results showed that each scale loaded on one single factor. Additionally, the entire survey of the manager was factor analyzed and showed two distinct loading based on the two constructs representing the manager survey. Only one item showed a low loading with its own scale and a high loading with the other scale. The employee survey was also factor analyzed in its entirety and showed seven distinct factors with high loadings in each respective construct, except for one item, which demonstrated about equal loading on several factors. Since the deletion of the items in the manager and the employee surveys did not make sense conceptually, the items were kept intact.

Results and Discussions

The following are the results of the study based on the two research questions presented.

1. *Employee expectations of the training and employee perceptions of training outcomes.* The results showed a service quality gap (a negative Gap 5 score) due to the discrepancy between employee

expectations of the training program and employee perceptions of the program's outcomes ($t = -4.12$, $p < .05$).

Gap 5 is defined as the discrepancy between employee expectations and employee perception of training outcomes (Employee Expectations – Employee Perceptions). In essence Gap 5 is the indicator for employee satisfaction or lack of it from a training outcome. In the context of this study, a positive Gap 5 score would imply that employees are dissatisfied with the training outcomes because they did not receive what they expected. Similarly, a Gap 5 score of zero would mean that employee expectations were just met. A negative Gap 5 score means that the employee received more than what was expected and is therefore more than satisfied with the outcomes (delighted). In this study the average Gap 5 score was slightly negative (-.74); employees were therefore slightly satisfied with the PMP training outcomes.

2. *Employee satisfaction with the training program as explained by the gaps that may occur in the training process.* The results showed that the marketing information gap (Gap 1) was positively related to employee satisfaction, whereas the standard of service (Gap 2) and service performance (Gap 3) gaps were inversely related to employee satisfaction with the training outcomes. Gap 4 had no significant relation to Gap 5. The service performance gap had the largest impact on employee satisfaction of training outcomes ($R^2 = .54$, $F = 5.61$, $p < .05$).

This finding suggests that a larger marketing information gap (Gap 1) (over-anticipating employee expectations) results in higher customer satisfaction (negative Gap 5 score). Gap 1 is defined as the discrepancy between manager perceptions of employee expectations and the employees' expectations of the training program. Employee expectation is the common factor between the two gaps and the only one that influences the relationship between the two because manager perceptions of employee expectations are not related to employee perceptions of training outcomes. Higher employee expectations will result in a smaller marketing information gap (Gap 1), which in turn will result in a higher (more positive) score for Gap 5, thus the negative relationship between Gap 1 and Gap 5.

A point to highlight is that the results of the gap analysis held true for the ranges of gaps in this study. If Gap 1 becomes too large, it does not necessarily result in greater employee satisfaction. Too large of a discrepancy between manager perceptions of employee expectations and employee expectations of the program would probably mean a complete misunderstanding of employee expectations. A misunderstanding of employee expectations would inevitably result in inadequate operationalization and execution of the HRD function.

On the other hand, when the service standard gap (Gap 2) and service performance gap (Gap 3) scores increased, so did the score for Gap 5. Gap 2 reflects the discrepancy between manager perceptions of employee expectations and how well the training program was operationalized. As Gap 2 increases, the implication is that the score representing manager perceptions of employee expectations was higher than the score representing how well the training was operationalized. In other words, the manager operationalized the training program to be below employee expectations, but not low enough to be significant in terms of the t-test results. Any perceptions below expectations will result in employee dissatisfaction (a positive Gap 5 score).

It is interesting to note that Gap 3 had the most impact on the variation in employee perceptions of training outcomes. This is in support of the literature in service quality (Bitner, 1992; Bitran & Lojo, 1993; Gronroos, 1984, 1985). When a customer comes into contact with a service provider (moment of truth), the customer does not see, nor does the customer care to know, the planning and coordination behind the scenes. What the customer experiences and cares for is the quality of service as delivered at that moment, notwithstanding that the quality of service is a product of the planning and coordination of many behind-the-scene elements in the service process.

Contribution to HRD

HRD managers will benefit from knowing that employee expectations of the HRD services they are about to receive have a direct impact on their perceptions of HRD outcomes. Additionally, this study determined empirically that the better the HRD professionals help managers understand their clients' expectations, the better they can help managers to select training specifications to meet those needs. HRD professionals should not only assess and operationalize employee needs; they should also pay a great deal of attention to the execution and transfer of training to trainees' job.

The instruments developed for this study can be used as diagnostic tools. By knowing potential failure points, HRD professionals can take a more proactive stance and alleviate any potential for failure. After implementing a training program in one area and identifying gaps therein, HRD practitioners can eliminate or minimize the gaps via a revised training program. The instruments can then be used again to assess whether or not the fine-tuning of the program resulted in greater employee satisfaction with the outcomes. For instance, Brinkerhoff and Gill suggest that the new training paradigm should introduce the role of a training leader, different from a training manager. The training leader in highly effective training (HET) approach is to use his or her expertise to assist management in achieving maximum possible return for the investment (Brinkerhoff & Gill, 1994). A critical function of the training leader involves consulting with line managers and other stakeholders on training needs and expectations as opposed to merely designing and delivering a specific learning intervention. By using the Gap Service-Management instruments, the training leader will not only find out how well the training goals were operationalized and added value to the organization (the "what" of the service), but he or she will also find out how the design of the instructional activities and delivery worked out (the "how "of the service). In other words, this model will give the leader the capability to find out that succinctly where the failure points were and how they began. Additionally, the instruments can reveal which pair of manager/employee has consistently scored high satisfaction so that they can be used as role models.

At this point, it is appropriate to address the limitations of this study for future research. The findings of this study are based on the data from two subsidiaries of a large service organization, and while representativeness of a sample is not a critical concern in theory testing, the generalizability of the results becomes critical when one attempts to draw practical implications. To further validate the instruments and improve the generalizability of such studies, HRD scholars should apply the instruments in different settings; that is, in different organizations and with different training programs and/or different HRD interventions.

It is also important to realize the inherent weakness of an ex post facto research design in which causal relationships cannot be established. Additionally there is a probability of the single method bias associated with the use of only one method of data collection. Observation of and interviews with respondents can supplement the quantitative component of the study. It is important to note also that, as is the case in other service quality studies, employees were asked about their expectations after their participation in the training program (Babakus, 1992; Chang, 1998; Parasuraman et al., 1988, 1991; Teas, 1994). Ideally, expectations should be assessed prior to the service delivery so that the service experience would not contaminate reports of expectations. Although the proponents of the gap analysis argue that service recipients of frequently used services have already established certain expectations because of extensive experience with that service; consequently, even the experience of overall satisfaction may in reality be based upon a series of previous perceptions and impressions, not just the last service as much as the researchers attempted to isolate the PMP experience (Prakash, 1984).

Another limitation was learning was assessed by the trainees without input from managers. However, managers did report their overall satisfaction with the PMP training outcomes. Future studies should assess stakeholder satisfaction with both organizational performance results as well as learning results given adequate lapse time between training and its transfer to employees' job.

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A Study of HRD Concepts, Structure of HRD Departments and HRD Practices in India

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This paper examines the current status of structuring of the HRD function and HRD subsystems in India against locally evolved "Integrated HRD Systems" framework by Pareek and Rao. Data from HRD audits of eight Indian organizations indicated that HRD function is not well structured, is inadequately differentiated, poorly staffed and fails to meet the requirements of this framework. The paper points out the pre-requisites for success of other HRD frameworks in India.

Keywords: HRD Function , HRD Systems, HRD Structure

The Human Resource Development as a Function has evolved in India very indigenously from the year 1975 when Larsen & Toubro Company conceptualized HRD as an integrated system and decided to separate it from Personnel. Since then, in the last 25 years most organizations have started new HR Departments or redesignated their Personnel and other departments as HRD Departments. Today there are high expectations from HRD. Good HRD requires well structured function and appropriately identified HRD systems, and competent staff to implement and facilitate the change process. This paper attempts to:

1. Examine the way the HRD function is structured in the Indian corporate sector,
2. Highlight the current HRD practices in India in relation to various HRD systems,
3. Examine the extent to which the HRD implementation meets the criteria of the Integrated HRD Systems approach of Pareek and Rao, and using this analysis, comment on the pre-requisites for the success of other recent HRD frameworks for Asian countries

Theoretical Frameworks of HRD

Pareek and Rao's Framework

In 1975 Larsen & Toubro a prominent Engineering Company in India had appointed two consultants from the Indian Institute of Management, Ahmedabad to study the performance appraisal system and make recommendations for improving it. The two consultants (Pareek and Rao, 1975) studied the system through interviews etc, and suggested a new system. Pareek and Rao (1975) recommended that "… Performance Appraisal, Potential Appraisal, Feedback and Counseling, Career Development and Career Planning and Training and Development get distinct attention as unique parts of an integrated system which we call the Human Resources Development System" (see Pareek and Rao, 1998 page 24). This system was proposed as a separate system with strong linkages with Personnel (Human Resources) system. Pareek and Rao (1977) in their second report of the Human Resources system in L&T recommended that the personnel function be viewed as Human Resources Function (HRF) and suggested a trifurcated function: Personnel Administration, HRD and Worker Affairs. Adding Organization development also to the HRD Function, the consultants recommended that…" Since OD is being added now, it is necessary to strengthen that part of HRD. We therefore recommend that the company may appoint a Manager OD with two officers to do a lot of research work which will soon start.' (Page 139).

The consultants differentiated the HRD from other components of HRF and also integrated structurally and system-wise. Structurally the HRD is to be a subsystem of HRD and integration of this with the other two subsystems (Personnel Administration and Worker Affairs) to be done by the Director level person (for example Vice-President Personnel & HRD), through task forces and sub-system linkages. Inter system linkages were outlined between various HRD subsystems to have an integrated system. Pareek and Rao also outlined a philosophy for the new HR system. They outlined 14 principles to be kept in mind in designing the HRD System. These principles deal with both the purpose of HRD systems and the process of their implementation. Some of these principles include:

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1. HRD systems should help the company to increase enabling capabilities. The capabilities outlined in their report include: development of human resources in all aspects, organizational health, improvements in problem solving capabilities, diagnostic skills, capabilities to support all the other systems in the company, etc.
2. HRD systems should help individuals to recognize their potential and help them to contribute their best towards the various organizational roles they are expected to perform;
3. HRD systems should help maximize individual autonomy through increased responsibility;
4. HRD systems should facilitate decentralization through delegation and shared responsibility;
5. HRD systems should facilitate participative decision making
6. HRD system should attempt to balance the current organizational culture with changing culture;
7. There should be a continuous review and renewal of the function.

In sum the Integrated HRD systems approach of Pareek and Rao (1975) has the following elements: (i) A separate and differentiated HRD department with full time HRD staff. (ii) Six HRD subsystems including OD, (iii) Interlinkages between the various subsystems, (iv) designed with 14 principles in mind, and (v) linked to other subsystems of Human Resource Function. After L&T accepted these recommendations in full and started implementing the State Bank of India the single largest Indian Bank and its Associates have decided to use the Integrated HRD systems approach and decided to create new HRD Department. Since then, by mid eighties a large number of organizations in India have established HRD Departments.

Other Frameworks of HR

As HRD came to prominence in the last decade, other frameworks and models came into existence. Some of these are briefly reviewed here.

The Strategic HR Framework Approach. This framework formulated by Ulrich and Lake (1990) aims to leverage and/or align HR practices to build critical organizational capabilities that enable an organization to achieve its goals. This framework offers specific tools and paths to identify how a firm can leverage its HR practices. Business strategy, organizational capabilities and HR practices are the three important elements in this framework.

The Integrative Framework. The integrative framework offered by Yeung and Berman (1997) identifies three paths through which HR practices can contribute to business performance: (1) by building organizational capabilities; (2) by improving employee satisfaction; and (3) by shaping customer and share holder satisfaction. Yeung and Berman (1997) argued for dynamic changes in HR measures to refocus the priorities and resources of the HR function. They argued that HR measures should be business driven rather than HR driven; impact driven rather than activity driven; forward looking and innovative rather than backward looking; and instead of focusing on individual HR practices should focus on the entire HR system, taking into account synergies existing among all HR practices.

Human Capital Appraisal Approach. This approach outlined by Friedman et al (1998) of Arthur Anderson consulting company is based on the belief that there are five stages in the management of human capital: clarification stage, assessment stage, design stage, implementation stage and monitoring stage. There are five areas of human capital management: Recruitment, retention and retirement; Rewards and performance management; career development, succession planning and training; organizational structure, and human capital enablers. A 5 X 5 matrix using these five stages and five areas could be used to evaluate and manage the human capital well. For example in the clarification stage the managers examine their human capital programs to fit into their strategy and overall culture. They may also examine each of the areas to fit into the strategy etc.

HRD Score Card Approach. A recent approach formulated by Rao (1999) envisages that HR interventions in order to make the right business impact should be mature in terms of the HRD Systems, Competencies, Culture (including styles) and business linkages. The maturity level and the appropriateness of each of the subsystems of HR, the appropriateness of the HR structures and the level of competencies of HR staff, line managers, top management etc.; the HRD culture (defined in terms of Openness, Collaboration, Trust, Autonomy, Proaction, Authenticity, Confrontation and Experimentation) and the congruence of the top management and HR staff styles with HRD culture, and the extent to which all the systems and practices result in employee satisfaction and customer satisfaction etc. are assessed through a well formulated HRD audit.

PCMM Approach. Curtis and team (Curtis et. al 1995) developed this approach for software organizations. The People Capability Maturity Model (P-CMM) aims at providing guidance on how to improve the ability of software organizations to attract, develop, motivate, organize and retain the talent needed to steadily improve their software development capability. A fundamental premise of the maturity framework is that a practice cannot be

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improved if it cannot be repeated. In an organization's least mature state, systematic and repeated performance of practices is sporadic. The P-CMM describes an evolutionary improvement path from an *ad hoc one*. Inconsistently performed practices, to a continuously mature, disciplined, and continuously improving development of the knowledge, skills, and motivation of the work force. The P-CMM includes practices such as work environment, communication, staffing, managing performance, training, compensation, competency development, career development, team building, and culture development. The P-CMM is based on the assumptions that organizations establish and improve their people management practices progress through the following five stages of maturity: initial, repeatable, defined, managed, and optimizing. Each of the maturity levels comprises of several Key Process Areas (KPAs) that identify clusters of related workforce practices. When performed collectively, the practices of a key process area achieve a set of goals considered important for enhancing work force capability.

The integrated systems approach of Pareek and Rao envisaged a separate HRD department for effective designing and implementation of HRD systems. It envisaged strategy as a starting point (as in Ulrich and Lake, 1990); and therefore focused on all the systems to achieve business goals and employee satisfaction. It aimed at synergy (like in the integrated approach of Yeung and Berman), proposed the phased evolution of HRD function (like PCMM approach) and included most of the elements of the Human Capital approach. While each of the latter models have brought to focus one or the other most neglected dimensions that could be good pointers for not getting the best out of HR, the essence is very similar to Pareek and Rao's approach. If the locally developed frameworks are not implemented well for reasons not associated with the framework but those associated with lack of understanding and seriousness, it may be presumed that advanced frameworks are even more difficult to adopt and get results. It is with this view that an attempt is made to assess the current status of HRD structures and practices in Indian Industry.

Methodology and Limitations

In order to examine the structure of HRD function and implementation of various HRD subsystems, eight of the fifty organizations who participated in HRD Audit conducted by the authors were chosen. These were chosen to represent a variety of Indian corporates. The eight organizations cover: financial services, consumer products, electronics, cement, tyres and automobiles.

The HRD Audit methodology involves an evaluation of the HRD structure, systems, processes, competencies, and culture by a team of experts. The methodology used for HRD includes: (i) questionnaire study of HRD systems and processes; (ii) individual and group interviews with HRD staff, top management, line managers and other stakeholders to ascertain their perceptions of the HR systems, and processes and outline the gaps; (iii) study of various documents relating to HRD systems; (iv) observation of the work culture, training in operation etc.; and (v) analysis of secondary data. The detailed methodology used in HRD audit is described in detail by Rao (1999). The observations reported in this study are drawn from the experiences of the authors of visiting these organizations for HRD audit and discussions with HR Managers, line managers and other employees. The HRD audit provides a lot of data which are not included here. The eight organizations are described subsequently. The observations for this paper are drawn from these eight organizations. The common part of these organizations is that they all sought an audit of their HRD by external consultants. This itself is a progressive step. To the extent this sample constitutes such organizations the sample is a biased sample. The authors however feel that these organizations are representative of the Indian corporate sector.

Results and Findings

Structure of the HRD Function

The structure of HRD function in the eight organizations is briefly described below

1. Venture Finance Company (VFC): VFC is a professionally managed venture finance company, which enjoys both national and international patronage. It has provided managerial and financial support to over 45 companies. The total manpower currently is 34 out of which 26 are managerial cadre the remaining are clerical support staff. This is the smallest of the organizations studied. VFC does not have a separate department for HRD. Currently there is one executive who looks after HRD and one deputy manager personnel and administrative matters.

2. Consumer Products Company (CPC): This CPC is in consumer products. Talent recruitment, retention and excitement are the focus in HR. Company aims at fully establishing itself as an FMCG company. E-commerce, E-initiatives, diversification are some future possible areas of work. Total no of employees is about 800. Corporate personnel is headed by a President- HR (who also looks after an SBU besides all HR activities). There are 3 Deputy General managers (personnel administration, TQM, and health services), 1 manager estates, recruitment, and other HR issues, 1 civil manager, 2 assistant managers (payroll and training and performance management), 1 executive (recruitment, 360 feedback and other matters), 1 senior officer (secretary to President & compensation manager) and 1 officer (administrative support in training, resignations, exit interviews, transfer etc). The Human Resources Function in this company is highly differentiated. The President- HR integrates it at the top level. There is no strong departmentation but specialization at individual level and a high degree of flexibility. The Managers in-charge of appraisals and training devote their full attention to these functions. OD, Career Planning, Potential appraisal are not focused at present. TQM and Feedback and Counseling are well integrated into the other systems.

3. Multinational Electronics Manufacturing Company (MEMC): MEMC is a world's leading supplier of electrical and electronic connectors and inter-connection systems. Headquartered in the USA, MEMC has about 46,000 employees all over the world. It is a world-class technology leader and is frequently named as one of the top 50 patent-holding corporations in the world. Total no of employees in this company at the time of this study were about 600. The HR department had 6 employees, 1 Manager, 1 Asst. Manager, 1 Senior Executive, 1 Officer, 1 Junior Officer, and 1 receptionist. The Head of HR integrates HRD function with the other HR Systems. While there are no separate departments, there are individual's in-charge of different HR systems.

4. Tyre Manufacturing Company (TMC): This TMC's market share is considered to be one of the top in the tyre industry in India. Total no of employees in one of its plants studied is about 1400. The HR department has 21 employees, who look after personnel, safety, time, office, welfare etc. There is no HRD department separately. It is not a differentiated function. After the HRD audit the company decided to establish a separate HRD unit and integrate it with the personnel function at the plant level. At the top level in the corporate office there is a high concern for competence building to meet changing needs of the industry.

5. Indian Multinational Company (IMC): This company is owned by an Indian Business House and is located in another country. It is a manufacturing unit and employs a few Indians. It is the best rated company in the country where it is located. It is the first to get ISO - 14001 and QS-9000 accreditation. 85% of its products are exported to about 30 countries (like UK, France, Spain, Italy, Israel, Etc) and most of its customers across the world consider it to be highly quality conscious and customer driven. It plans to double its production in the next five years. It intends to do so with an addition of less than 20% to its manpower. It had about 300 local employees and about 40 Indian Managers. The HR Department had a total of 31 staff of which there is 1 Deputy General Manager heading the functions; 3 officers ach looking after training, personnel matters and safety. Of the remaining 9 are drivers, 2 receptionists, 4 safety technicians, 2 agricultural engineers; 1 nurse and other miscellaneous staff.

6. Automobile Manufacturing Company (AMC): This company envisions itself to be a world class organization in the next few years. Competition is on increase with the entry of multinationals and JVs. Total no of staff at managerial levels were over 1,700 technical and non-technical personnel. HRD staff consisted of 16 members. 6 had an engineering background, which gives them a technical advantage in the business of the company. Of them only two looked after Training and development and the rest looked after other HR functions including recruitment, induction etc.

7. Cement Manufacturing Units (CMUs) : CMU -1 had a total of 154 staff and officers and 130 workmen. Of the 154 staff 27 are in Senior Managerial Cadre, 69 are Supervisors and Officers and 58 are Assistants. 77 of the 130 workers are skilled. A Deputy General manager Personnel & HRD who integrates both the functions manages the HR function. A manager and an officer assist him.

CMU-2 is a market leader and is expected to be the largest single location manufacturing plant when its plans are achieved. The plant had employee strength of 450 workmen and 782 Officers. The officers include those of Marketing .There were 10 members in Personnel and HR department and 17 in welfare department.

Structuring of HRD

The above description of the HR function indicates that the HR Departments in Indian organizations (including one multinational located in India and one Indian company located in another country) do not have well differentiated structures appropriate for HRD. They have well differentiated roles in Personnel but not in HRD. When it comes to HRD it seems that they structure the role in such a way that it is even mixed up with other personnel functions. As the structures are mixed and convenience based, the HRD activities also get mixed attention and are often convenience based. As a result various sub-systems of HRD do not get the attention they deserve.

Following the structuring suggestions by Pareek and Rao there should be separate functionaries available for handling Performance appraisal, Feedback and Counseling, Potential Appraisal and Development, OD, Training and Career Planning and Development. The HRD function is also very inadequately represented. On an average while there is one Personnel staff to look after the personnel management needs of every 100 employees. There is less than one full time person to look after the HRD needs of every 1,000 employees. This can be considered as very inadequate. Even those who are there are not well qualified in terms of learning methodology, human development and such other technical skills required to handle the competency building, commit building and culture building functions of HRD.

It may be concluded that the HRD Function in India is not appropriately structured in the country where the World's first dedicated HRD department was started. The structures do not follow the principles envisaged by Pareek and Rao and are not differentiated as outlined by them. Indian organizations seem to have played only lip sympathy to HRD. More than 50% of the organizations do not even have a full time dedicated HRD Facilitator. Where there is one he is loaded with recruitment, salary administration and such other roles which are not development roles.

Highlights of the HRD Practices of the eight companies:

The HRD practices of the eight companies are presented in Table1 below.

Table 1: Summary of Highlights of the HR Structure and Systems Used in 8 Companies as in the Year 2000

HRD DIMENSION	VFC	CPC	TMC	MEMC	IMC	CMU-1	CMU-2	AMC
STRUCTURE	Single person Department covering HRD as a part of Personnel and Administration. Reports to CEO	Top-level President Corporate Personnel Function integrating HRD into it. Separate Managers allocated to HRD. Similar to L&T model	No separate HRD Function. HRD activities are part of Personnel & Industrial Relations. HRD Audit recommended separate identity	Top-level person in-charge of HR and HRD Integrates HR and HRD function. No separate HRD Managers. Chief spends time on HRD and pays special attention.	No separate HRD. Personnel function looks after personnel administration. Training looked after by a separate functionary. After HRD Audit special attention being given to HRD	No separate HRD. HRD integrated into HR Function, which handles HR Administration matters.	No separate HRD Department. Personnel and welfare oriented. HRD is mainly in terms of Appraisal and Training.	There is a separate HRD. Personnel function is separate and focuses on worker welfare and administration.
PERFORMANCE APPRAISAL	Trait based appraisal Open Changed to KPA based with quarterly performance review discussion after HRD Audit	Balance Score card framework based KRAs identified Qualities used 360 Degree feedback used for top management	Employee Development Review having goal setting and Behavioral attributes assessment; done annually	PBR Performance for Business Results, open system linked to business goals, annual system only	Open system with self appraisal promoting open discussion with superior; trait based only, KPA & KRA's absent; done annually	Annually done; Comprehensive & development oriented appraisal system, inclusive of Self appraisal, goals and accomplish-ments, personal attributes, team appraisal and appraisal of effort put in for subordinate's development	Development Review Process initiated in 1994 focusing on Job Goals, Personal Traits and Personality, includes joint appraisal on some issues only	Annual Performance Review system, not perceived to be very transperent and open
POTENTIAL APPRAISAL	No potential appraisal	No potential appraisal system	No potential appraisal system	No potential appraisal system	No potential appraisal system	Mention in Performance appraisal through recommendations for potential development	Mention in appraisal system, not focused on or given required attention to	Not Currently being introduced, succession planning present in some divisions

HRD DIMENSION	VFC	CPC	TMC	MEMC	IMC	CMU-1	CMU-2	AMC
FEEDBACK AND COUNSELING	Performance counseling and feedback is done twice in the year and includes the appraisal exercise	No system providing feedback or counseling exist	Performance Review Development at start of appraisal only, counseling absent	Weak system of feedback giving, no counseling	Weak system of feedback giving at start of appraisal; counseling absent	Limited to appraisal feedback only; performance counseling non-existent	Performance Feedback given during Review sessions, Counseling weak	Zilch Quarterly Feedback being introduced after the audit
CAREER PLANNING AND DEVELOPMENT	No career planning	No career planning in organization, career development encouraged through training only	Zilch	Policy of Career & succession Planning is documented	Zilch	Exists in form of "Reserve Pools", but is limited to highest two positions in departments only	Zilch – no system exists	Zilch
TRAINING AND DEVELOPMENT	T & D is an area of high focus and importance, post training presentations and reports are mandatory, library of same is maintained	Continuous throughout the year, also as part of TQM, training needs identified, calendar prepared, internal faculty identified and developed, post training feedback monitored	Systematic T&D needs identification done annually for Functional, Behavioral & Managerial skills	Employee Training and Development Management Committee identifies T&D needs quarterly and continuously facilitates them, Training Calendar	Continuous through Total Productivity Management for technical skills, post training presentations and reports, no scientific identification of training needs	Training and Development needs identified through various sources and means, training calendar prepared for the year and communicated to all, systematically done and is continuous in the organization	Continuous activity, individual department for T&D, training calendar made every year, training needs identified through brainstorming and interdisciplinary meetings	Technical training is highly emphasized, continuous activity, main focus on competency building, high support from top management, post training data collection is weak
ORGANIZATIONAL DEVELOPMENT	Weak	Employee satisfaction surveys, Climate diagnosis, manpower studies, benchmarking, market surveys, action research, Kaizens, Small group activities etc.		Culture Building: Annual Day, Sports		Sporadic and not given adequate focus in the organization	Managerial Grid & Effectiveness programs conducted along with periodic diagnostic surveys	A number of cultural change initiatives are being introduced

From the table the following trends may be observed in terms of the HRD practices:

- Most organizations seem to have well developed performance management systems or are in the process of having the same. The performance management systems of all these organizations seem to be development oriented. This is more in that organization where there is separate HRD department or there is high emphasis on HRD.
- Feedback and Counseling is the second system most seem to follow. However this is integrated into the performance appraisal and hence diluted. The Feedback and review discussions are conducted more as a formality than with a high development orientation.
- There is no potential appraisal as a separate system in any of these companies. It is there as a part of the performance appraisal in a few of these. Only one of the organizations is planning to use Assessment centres.
- 360 Degree Feedback is being tried out in six of the eight organizations either as part of corporate initiative or on their own initiative.

- Employee satisfaction surveys, TQM interventions, Total Productivity Management, Team Building workshops, Visioning exercises, Train the trainer programs etc. are some of the OD interventions being used by these organizations. However there is very little of in-house competencies in OD. OD interventions are largely outsourced. HRD Departments are not yet being developed as internal change agents or OD facilitators.
- Training and development is well developed and well managed in these organizations. Internal Faculty has been developed in most of these organizations. Those organizations covered under ISO certification programs have given a systematic and high emphasis to training and development activities. They are still to graduate from Training and Development orientation to creation of a learning environment.

Extent to which Integrated Systems Approach is being followed in Implementing HRD

Table 2 presents a summary evaluation of the extent to which Pareek and Rao's Integrated System Approach is followed in these eight organizations. The observations are derived from various audits.

Table 2: Extent to which Elements of Pareek and Rao's (1975) Integrated Systems Approach is Followed

Element	Extent to which followed
➢ A differentiated structure with separate HRD Department and full-time staff.	➢ None of the organization have differentiated HRD structures. Less than 50% have full time HR staff
➢ Six subsystems of HRD	➢ Only two or three are implemented well. Potential apprialsa, career planning and OD are weak.
➢ Interlinkages between subsystems	➢ Only performance Appraisal is linked to training and full potential of Performance appraisal is not used.
➢ Designed with 14 principles in focus	➢ The Principles are not used though occasionally some components figure out in terms of value
➢ Linked to other systems of HRF	➢ This is done by default as HRD doesn't have a separate identity.

It is clear that from this table, that 25 years after the integrated HRD systems approach was made available in India, there is very poor implementation of the same. The approach is very simple, and locally evolved + with the help of Indian Managers. It is not well implemented in the experience of the authors due to (a) lack of understanding and appreciation of the top management the significance of HRD and its linkages to business, (b) lack of competent HRD staff, (c) lack of professional preparation of HRD staff, and (d) inadequate understanding HRD conceptualizations and frameworks. The recent HRD frameworks are conceptually more heavy, culturally not very sensitive to Asian cultures and are more sophisticated in terms of larger number of variables they cover and linkages needed. The use of these frameworks and models to Asian organizations is doubtful unless implementation problems like the one mentioned above are taken care of.

Conclusions and Recommendations

This survey indicates that the HRD function is not well structured as envisaged in mid seventies. The function seems to be a lot more convenience driven rather than systems driven. It does not have all the systems ideally it should have as envisaged in the seventies. The systems are not well integrated. The integration mechanisms are stronger but the specialization does not get the attention it deserves. The structures and competencies are not fully in tune with the Integrated HRD systems model offered by Pareek and Rao. The HRD subsystems however have evolved and matured to a substantial degree, specially the Performance Management System, and Training and Development system. OD and Feedback and Counseling are in the next level of maturity. Potential appraisal, and career Planning and development are the least developed and used subsystems. The HRD Departments need to have professionally trained and competent staff. If they have to make an impact they should enhance the maturity levels of all the above subsystems. These subsystems have a lot of potential for giving competitive advantage through the development of employees and their competencies.

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Career Development: What is its Role in Human Resource Development?

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This paper explores the role of career development theory and research in the field of Human Resource Development (HRD). Definitions of HRD and career development are provided and the status of career theory and research and its application to HRD are examined.

Keywords: Career Theory, Career Development, Human Resource Development

In its development as a profession, human resource development (HRD) has drawn upon the fields of psychology, sociology, organizational behavior, education and communication as well as economics and management science to build a body of knowledge and expertise and a base for research. Over the last twenty years, HRD professionals have refined their roles within organizations and have moved from a field that was defined by practice to one based upon both theory and practice (Jacobs, 2000).

Since Nadler in 1968 first coined the term HRD (Chalofsky, 1992) many scholars have attempted to precisely define the roles and responsibilities of the HRD profession. In a review of eighteen definitions of human resource development, Weinberger (1998) identified career development as a key component in four of those definitions. This paper will examine the status of career theory and research and the role of career development in human resource development.

Human Resource Development and Career Development Defined

Definitions of HRD

The 1989 Models for HRD Practice reported the results of a competency study sponsored by the American Society of Training and Development. In this report, HRD was defined as: "the integrated use of training and development, organization development, and career development to improve individual, group, and organizational effectiveness" (McLagan, 1989, as cited in Rothwell & Sredl, 1992, p. 3). Watkins (1991) defined HRD as a "field of study and practice responsible for the fostering of a long-term, work-related learning capacity at the individual, group, and organizational levels. As such it includes – but is not limited to – training, career development, and organization development" (p. 253). In Weinberger's 1998 review of definitions of HRD, two more definitions included career development as an element of HRD. Marquardt and Engel's 1993 definition included the provision of career counseling as a skill needed in HRD and Marsick and Watkins in 1994 defined HRD "as a combination of training, career development, and organizational development" (as cited in Weinberger, 1998, p. 79).

In recent years, Swanson (1999) has defined HRD and its core process as follows:

> HRD is a process of developing and/or unleashing human expertise through organization development and personnel training and development for the purpose of improving performance at the organizational, process and individual/group levels. The process of HRD is made up of five core phases including: analyse, propose, create, implement and assess (p. 2-3).

This definition retains the use of training and organization development as a means for developing employee potential and improving performance, but omits career development as a core process. Swanson (2000) does include career development as one of the three critical related areas of HRD. The others are human resource management and quality improvement.

Five key underlying theories are now associated with HRD: learning theory, performance improvement theory, systems theory, economic theory and psychological theory (Weinberger, 1998). The many roles of practitioners have included, but are not limited to trainer, instructional designer, administrator, career advisor, internal consultant, educator, organization development specialist and purveyor of services (Rothwell & Sredl, 1992; Mafi, 2000). In 1986, Ralphs and Stephan reported the results of a study of HRD departments in Fortune 500 companies. The top four activities that were considered a function of HRD were: training and development, career development, human resource planning, and organization development, (Ralphs & Stephan, 1986).

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Definition of Career Development

A career is a sequence of work experiences and personal changes that take place over the course of an individual's life (Arthur, Hall & Lawrence, 1989; Bailyn, 1989; Hall, 1971). Careers are the means by which an individual's attributes are brought together with the environment where work takes place, the organization (Bailyn, 1989; Ornstein & Isabella, 1993). Career development focuses on the alignment of individual subjective career aspects and the more objective career aspects of the organization in order to achieve the best fit between individual and organizational needs as well as personal characteristics and career roles (Hall, 1971; McDougal & Vaughan, 1996; Rothwell & Sredl, 1992).

Leibowitz, Farren and Kaye (1986) define the career development system as the "organized, formalized, planned effort to achieve a balance between the individual's career needs and the organization's work-force requirements" (p. 4). Career development programs help to ensure that needed skills are available within the organization and improve the organization's "ability to attract and retain highly talented people" (Morrall, 1998, p. 83). The career development system when integrated with human resource structures, offer a variety of opportunities for development and can "form the link between current performance and future development" (Leibowitz et al., 1986, p. 5). To be successful, career development should be linked to business strategy and have executive support (Gutteridge, Leibowitz & Shore, 1993). The individual and organization share responsibility for the career development process.

Two approaches to career development are career planning and career management. Career planning is an individual level approach and is the mechanism by which people explore their selves and career opportunities (Hall, 1986). The individual assesses his/her interests, skills and values in order to consider their options, make career choices and set career goals (Leibowitz et al., 1986). Career planning activities include self-directed workbooks, self-assessment testing and career counseling and career-planning workshops. Organizations are responsible for providing the tools for this self-assessment and for providing opportunities for training, education and development (Leibowitz et al., 1986).

Career management on the other hand is an organizational level approach that involves the process of strategic human resource planning and the organization's career system (Hall, 1986). Career management programs address the human resource needs of the organization while taking into account individual career plans. Management development programs, organizational career paths or ladders and succession planning are all examples of career management practices.

Career Theory and Research

Like human resource development, career theory and career development are applied fields rooted in multiple disciplines. The career concept has been influenced by work in psychology, sociology, anthropology, counseling psychology, industrial psychology, economics, human resources, organizational behavior and theory and the management sciences (Arthur et al., 1989; Leibowitz et al., 1986; Ornstein & Isabella, 1993). The foundation for career development activity is rooted in adult development, career choice and development, learning and organization theories (Leibowitz et al., 1986).

Dominant Career Theories and Their Application to HRD

Four theories that dominate career thinking and research (Brown & Brooks, 1996; Brown, 1996; Osipow, 1990) are also applicable to HRD. Osipow (1990) states that their dominance may be due to either their "empirical base and operational utility or because their ideas have widespread appeal" (p. 123). Either way, these theories can provide insight into individual employees as well as the prediction of congruence between the personality and the occupation of an individual. They are the trait-oriented theories of John Holland and Rene Dawis, the developmental theory of Donald Super, and John Krumboltz' learning theory.

Trait-Oriented Theory. Holland's trait-oriented theory is perhaps the "most widely used theory in organizational career development programs" (Leibowitz et al., 1986, p. 80). The model, which classifies six personality types and their relation to the work environment, seeks to match individuals with a congruent environment for increased job satisfaction and longevity (Muchinsky, 1999; Osipow, 1990; Spokane, 1996). How personality types influence satisfaction, tenure and achievement and how environments influence personality, satisfaction, tenure and achievement provide insight into organizational behavior and provide a framework for practice (Brown, 1996; Muchinsky, 1999; Rayman & Atanasoff, 1999).

Although it is predominantly a model of career selection, Holland's theory has been used to explain person-organization fit. This "concept of fit has transcended the topic of vocational interests, and is now the dominant model which underlies theories of organizational behavior" (Muchinsky, 1999, p. 128). The goal of person-organization fit is deemed appropriate by HRD scholars and is a core belief about people (Ruona, 2000). Holland's theory can be used by organizations in selection and placement of employees, in the creation of teams, and to select individuals for training and job enrichment activities.

Holland's theory, along with Dawis' work adjustment theory, is considered the best-developed and most influential model when "both practice and research are considered as the sole criteria for judging theory" (Brown, 1996, p. 524).

Work Adjustment Theory. The work adjustment theory is also a trait-oriented theory. It is a process model that describes how the work personality develops and how that personality is affected within the work environment (Dawis, 1996; Osipow, 1990). When a worker's personality and environment are congruent, both the worker and the organization are satisfied. When they are not congruent, active and reactive adjustments are made (Dawis, 1996). Work adjustment theory has been shown to be useful in the prediction of worker satisfaction and work satisfactoriness, the prediction of persistence, stability and productivity at work, and in the prediction of job tenure (Dawis, 1996; Osipow, 1990). It is used in career planning and work adjustment counseling as well as by organizations to study the adjustment of adults to change in the work environment (Holton in press) and to plan for subsequent development activities.

Developmental Theory. Super first introduced his developmental theory in 1953 and since that time it has been used as the basis for numerous studies (Brown & Brooks 1996; Brown, 1996). The strength of this theory is in its career growth stages that take place over an individual's lifespan and the designation of the life-space dimension, which depicts individual life-roles (Super, Savickas & Super, 1996). Over a person's lifetime they adjust to work by accomplishing developmental life tasks throughout five stages: growth, exploration, establishment, maintenance and disengagement. Underlying these stages are the multiple social roles individuals fill. These include the roles of child, student, leisurite, citizen, worker and homemaker.

There are questions about the comprehensiveness of this theory and its applicability to women and minority cultures (Dalton, 1989; Schein, 1986). However, Super's ideas about values, career maturity and life-role interaction are very influential in career development (Brown, 1996) and can be useful in HRD practice. Individuals move through life's developmental tasks and adjust to changing roles in home and work life. Knowledge of the developmental stages of an individual's work life and an awareness of the changing needs of adult employees are beneficial in the design of learning experiences and training as well as organizational development interventions (Holton in press).

Social Learning Theory. Introduced by Krumboltz in 1979, social learning theory emphasizes the interaction of people with their environment (Osipow, 1990). It is posed that certain factors such as genetics, innate abilities, environmental conditions, life events, and learning experiences influence the individual's approach to work tasks and career paths (Mitchell & Krumboltz, 1996). As a result of these influences people form beliefs about their own reality. This theory has much in common with the theory of andragogy, which emphasizes the impact of individual differences and life experience on learning (Knowles, Holton & Swanson, 1998). When used in conjunction with the principles of andragogy, social learning theory can be a powerful tool for the HRD practitioner, especially when used in the context of education and training design. Traditional uses for social learning theory include career counseling and career education and research about individuals.

Shortcomings of Career and Career Development Theory

Career theories provide insight into the relationship of the individual to work. However career development theory has been overlooked by HRD (Holton in press). Very little literature is published about the similarities of career development, training and organizational development fields even though they are all based on organizational change models and systems thinking (Russell, 1991). For example, of the career literature reviewed in the Career Development Quarterly for the years 1995-1998 (Niles, 1997; Stoltz-Loike, 1996; Swanson & Parcover, 1998; Young & Chen, 1999), only three articles had appeared in one of the top five HRD literature sources (Sleezer & Sleezer, 1997).

Much of current career theory and research is focused on career choice and occupational selection as well as Super's early stages of career development: career exploration and establishment. Reviews of over 800 career research articles and books revealed most of what is found in the career literature is related to individual assessment and counseling and not the individual's progression through their career nor on changes in the organizational context (Niles, 1997; Stoltz-Loike, 1996; Swanson & Parcover, 1998; Young & Chen, 1999). In 1998, only 26 of the 259 publications reviewed related to organizations (Young & Chen, 1999) and, in 1997, only 40 of the 180 publications reviewed considered organizational and workplace issues (Swanson & Parcover, 1998). There is little career research that evaluates the effectiveness of organizational career programs (Russell, 1991).

When research is directed to careers within organizations the focus is most often on the effect of the organization on individual careers rather than the effects of careers on organizations (Nystrom & McArthur, 1989). This attention to the individual and the early career stages of career exploration and decision-making leaves many questions unanswered (Swanson, 1992). Career research and practice has not been linked to performance. Career planning programs provide individual benefits but are not "based on business performance requirements" (Torraco & Swanson, 1995, p. 17).

Career research has assumed a stable environment and traditional careers (Sullivan, 1992). We know that this is no longer the norm in the workplace. Much of what is seen in the literature is applicable to the traditional concept of careers and career progression. Career theory depicts "development as a vertical, hierarchical process and the career as a linear, age-related progression that is assumed to occur within stable organization or occupational settings" (Fletcher, 1996, p. 109). However, this notion of the traditional career seems to be the exception instead of the rule in today's world.

Hall and Mirvis (1996) suggest that because of changes in the work environment, career progression should be viewed as a cyclical process of learning and mastery rather than progression through a set of stages. Kram (1996) agrees. She asserts that within a turbulent and diverse work context developmental career models are "less effective in understanding, predicting, and responding to a particular individual's career concerns" (p. 136). With increased emphasis on alternative career paths for individuals and less hierarchical more flattened organizations, traditional theories of career development may no longer be relevant (Hall, 1986; Mirvis & Hall, 1996).

Trends such as the increased number of women and minorities in the workplace, the middle-aging of the workforce, the global economy and a distributed workforce must also be considered when evaluating career theory and research (Jarratt & Coates, 1995). Dalton (1989) questions whether life-span models of career development are relevant for women's patterns of entering and leaving the workforce. Schein (1986) also worries that "much of our career research is culturally biased" (p. 315). In a global economy, issues of multiculturalism and international careers move to the forefront.

From Theory to Practice

Career development practices benefit the organization in several ways. In a tight labor market, development practices are critical 'for generating loyalty among high potential employees' (Morrall, 1998, p. 56). Other benefits of a career development system for the organization include: reduced turnover, better communication, equal opportunities for women and minorities, increased motivation of employees, improved maintenance of employee skills and increased effectiveness of human resource systems and procedures (Leibowitz et al., 1986; Simonsen, 1997).

HRD professionals are concerned with improving organizational, process and individual performance as well as individual and organizational learning. They use tools such as assessment and training and evaluation to accomplish that goal. Similarly, "career development planning includes needs assessment, to determine appropriate training and development activities, and measurement, to determine whether any learning took place" (Simonsen, 1997, p. 61). Hall (1996c) proposes several activities that can improve career development practice that parallel the roles and practices of HRD and include the roles of organizational interventionist; promoter of learning through work; promoter of continuous learning through job mobility. Activities include providing information about careers and services and the promotion of work planning activities that involve finding a good fit between the individual and work that is needed.

Scholars and practitioners should think of careers in "terms of skill development, initiative, and personal freedom" (Mirvis & Hall, 1996, p.72) and should endorse training initiatives that promote lifelong learning. McLagan (1997) identified a learning competency as necessary for performance of the people practices within an organization. The components of this learning competency are personal career development, along with individual development, team development, education and training, coaching and mentoring.

Career development practices are considered by scholars to be a desirable role or competency of HRD practitioners (McLagan, 1996, 1997; Morrall, 1998). The role of individual development and career consultant, is listed as one of nine roles to be performed by HRD practitioners and includes the responsibility for assisting employees in the evaluation of their values, competencies and goals and in the formulation and implementation of personal development plans (McLagan, 1996).

Morrall (1998) suggested that professional and career development can be important components within rightsizing models of HRD. He recommends the strategic use of professional and career development to determine training needs and to ensure needed skills are available within the organization. Career development theory, especially work adjustment theory and developmental theory, can provide a lens to study the effects of change on the individual in an organization (Holton in press).

Whether or not an organization has individual employees with the capacity and expertise to perform their jobs is of concern in both HRD and career development practice (Swanson, 1994). These factors have importance at all levels of the organization and have to do with organizational leadership and human knowledge capital as well as the individual capabilities of its employees. Selection, placement, training and skills assessment practices are related to evaluation of the expertise available within the organization. To ensure the satisfactory performance of these practices, Simonsen (1997) recommends the alignment of career development processes with the strategic business needs of the organization and organizational systems.

Finally, Gutteridge et al. (1993) recommend several strategies to enhance organizational career development processes. Many of these strategies should be enacted through a partnership with organizational HRD efforts. These include: linking development planning and strategic planning; linking career development with human resource systems; train managers to be effective career coaches; develop and implement peer-learning and team-based developmental activities; identify and develop transferable competencies; accommodate learning styles and other special needs of employees; link career development to quality initiatives; and expand career development measurement and evaluation.

Conclusions and Recommendations

For career theory to play a role in HRD, researchers and scholars must build upon past and present thinking to address several issues. First, the study of careers cannot end with an individual's entry into an organization nor can it end with the study of an individual's career progression (Dalton, 1989). To be of use to the HRD field "issues such as productivity, the identification and implementation of new skills, the impact of the atrophy of old skills (including obsolescence), work stress, and coping, and how environmental variables interact with worker attributes over time must be appropriately addressed" (Osipow, 1990, p. 130).

A theory of careers that takes a holistic view of the individual and "encompasses all spheres of activity and all corresponding facets of personal identity" is needed (Hall, 1996b, p. 7). Research that is related to how individuals "learn from work experience" and whether or not they can "learn how to learn"' (Hall, 1996c, pp. 333-334) would be useful in continuous learning initiatives.

Career theories must take into account the dynamic nature of careers and the "occupational, organizational, or task requirements of the work entailed in that career" (Bailyn, 1989, p. 485). Future research should take into account protean careers (those driven by the individual, not the organization) and the new career contract where the individual seeks psychological success, continuous learning and opportunities for development instead of recognition and promotion (Hall, 1996a). As alternative career paths, job rotation, lateral and downward moves and the use of cross-functional teams, become more common, and as careers progress through multiple cycles instead of an hierarchical progression, scholars will need further research on the values placed on intrinsic vs. extrinsic rewards as well as the value of psychological success (Hall, 1986; Mirvis & Hall, 1996).

Future research should delve into boundarlyess careers and the employee transitions between occupational and organizational boundaries as well as among work roles. Ornstein and Isabella (1993) recommend a research agenda that includes the attraction of individuals to an organization, their socialization into those organizations, the adjustments, life issues and organizational conditions facing individuals and the commitment of the individual and the organization to the work. Sullivan (1999) adds to this agenda with five major recommendations:

- Examine effect of employment relationships on individual and organizational outcomes.
- Examine the effectiveness of organizational programs and new learning methods for skill development.
- Examine the career experiences of women and minorities.
- Examine the technology's impact on careers
- Examine the cross-cultural aspects of career research.

Career research needs to be conducted on the effectiveness of career development interventions as well as on the usefulness of career theory in HRD applications. Career concepts must be linked more closely to organizational strategy, performance management and performance outcomes (Simonsen, 1997). Watkins (1991) suggests that human resource developers "seek ways to expand the scope of their role to include many pathways to learning and organizational effectiveness" (p. 253).

These research propositions, if acted upon, could increase the body of knowledge related to careers today. It would also be of great benefit to HRD practitioners and the study of organizational behavior and performance. To be useful, research will need to reflect the "rapidly changing, fast learning, and complex" (Hall, 1996c, p. 333) organizations being studied and provide results that are useful to not only the academic world but to these organizations and the practitioners being studied.

Career development theory and practice offers a means to expand the role of HRD and to help to meet HRD goals. Career development can and should play a role in HRD.

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Free Agent Learners: The New Career Model and its Impact on HRD

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Changes in the job market are affecting how employees view their current positions and careers. More employees (so-called 'free agents') are developing portfolio careers. They focus on securing their long-term employability through continually enhancing and expanding their expertise, knowledge-base, reputation, and networks. It has been claimed that this is influencing how employees view and approach their workplace learning. This paper reports the findings of qualitative research aimed at exploring the free agent concept and the implications for HRD.

Keywords: Free Agents, Free Agent Learners, New Career Model

The term *free agent* is applied to employees who focus on their long-term employability security within the new career model (Kanter, 1995), without seeing themselves as bound to any one organization (Packer, 2000). They manage their own careers, moving to those jobs and organizations that offer them the opportunities for growth they need to maintain their employability (Packer, 2000). Given their attention on expertise and growth, workplace learning is important for free agents who look for opportunities to learn and apply that learning (Caudron, 1999). What then are the implications for HRD functions in organizations?

The Research-to-Practice Committee of the American Society for Training and Development (ASTD) recently explored the impact of free agents on training through a series of three articles published in *Training and Development* (Packer, 2000; Short & Opengart, 2000; Martineau & Cartwright, 2000). The series was designed to explore free agents and training with reference to existing research, and in doing so highlighted how little has been published in the HRD press on the impact of free agents on the profession (with the exception of Caudron, 1999, and Marsick, et al., 2000). If the authors of the three article are correct in their assertions, then:

- Organizations are likely to need to use learning as a means of attracting and retaining free agents (Packer, 2000),
- HRD functions will need to take a broader perspective on learning to supplement the traditional focus on training (Short & Opengart, 2000),
- HRD functions will need to operate as a partner with other organizational systems in the design and delivery of actions to attract and retain free agents (Short & Opengart, 2000).

Because of the lack of research to date, there is little published evidence to either support or disprove these assertions. The purpose of the qualitative research study described in this paper was to fill some of that research gap by exploring free agents in organizations and their influence on HRD functions. By gaining a better understanding of these influences, it is hoped that HRD functions can adapt their services to meet the needs of free agents and organizations, and in doing so can support individuals as they maintain employability security and support the organization in retaining key employees.

Theoretical Framework and Literature Review

This study was framed using existing literature on free agents, which was written mainly by academics from business schools (Deal & Kennedy, 1999; Kanter, 1995) and authors who focused on the training practitioner audience (Caudron, 1999; Packer, 2000). That literature is summarized in this section.

Many employees are changing their views of careers, partly in reaction to downsizing, outsourcing, e-commerce, mergers, and other organizational changes (Deal & Kennedy, 1999). Together with shifting

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demographics, rising educational levels, and increasing numbers of dual career couples or families (Hoff, 2000), these factors are creating a new kind of career. Whereas employees once saw certain careers as allowing them to stay in a single organization for life, careers are ceasing to consist of such long-term employment with one employer (Kanter, 1995). Instead, they are being formed from a series of jobs with different employers, with professionals more likely to consider themselves as having a career within their profession and employees as being employed in the industry rather than by the organization (Saxenian, 1996).

Initially, these changes to careers were experienced in knowledge-based industries, such as software, telecommunications technology, multimedia, biotechnology, and health technology. However, there are signs of them spreading to organizations in other sectors (Wooldridge, 2000). There is also evidence that the new career model is being supported by newcomers to the workforce, who enter with a different attitude towards careers than their older generations (Chalofsky, 2000).

As employees experience greater uncertainty in their careers, they shift their attention from employment security to employability security (Gould & Levin, 1998; Wooldridge, 2000), which implies the need for changes in how employees approach their career, career management, and career-enhancing activities (Kanter, 1995). From the perspective of individual employees, success will come to those who know themselves – their strengths and values, how they best perform, where they belong, and what they should contribute (Drucker, 1999); and to those who update and expand their expertise, knowledge and skills, who build and maintain networks, and who increase and display reputations (Short & Opengart, 2000). Employees therefore need to increase their learning capability, which requires having the necessary intelligence, high self-esteem and self-efficacy, being open to new experiences, having a need for achievement, and believing they can change (Van Velsor & Guthrie, 1999). Employees will also need career self-management skills (Hoff, 2000), including feedback-seeking skills and job movement preparedness (Kosseck, Roberts, Fisher, & Demarr, 1998).

The shift to employability security results in a fundamental change in what employees expect from their employers, and how employers should think about their responsibilities and obligations (Kanter, 1995). From the organization's perspective, potential as well as current employees' focus on employability will require that organizations consider learning as a lever for attracting and retaining skilled employees (Packer, 2000). As free agents focus on developing a portfolio of assets and a collection of value-adding skills (Gould & Levin, 1998), they will offer those assets to organizations, who in turn will benefit from increased competitiveness. The free agents will expect something in return for their diligent efforts: that their employers offer opportunities for growth through learning and the application of that learning (Caudron, 1999). Where growth is limited and employability threatened, employees may seek out alternative organizations that offer the desired incentives and structures around learning. Organizations that fail to deliver the desired learning and growth therefore risk losing key employees and becoming less competitive (Packer, 2000).

Employees' focus on employability security and career portfolios has led them to be likened to free agents in professional sports (Kanter, 1995). Like their sporting counterparts, free agents in organizations are not bound to any team or franchise (Packer, 2000). Given the central role that workplace learning plays in building employability, some authors have described free agents in learning mode as free agent learners (Caudron, 1999; Marsick, et al, 2000; Packer, 2000). Free agent learners look to employers to offer opportunities for growth through learning and the application of that learning. Caudron (1999) described them as independent, highly motivated adults who take responsibility for their own learning and development, utilize their spare time to learn, use new approaches to learning, and self-teach using a variety of resources. These employees are more selective and independent in the training they receive.

Caudron's (1999) statements about the free agent learner approach to learning led Short and Opengart (2000) to describe how HRD functions can support organizations as they seek to attract and retain free agents. They claimed that adapting would require that HRD functions to see training as just one means of employee learning, to operate in partnership with other organizational systems and functions to attract and retain high quality employees, and to change the role of trainers towards that of learning champions, advisers, and counselors. However, there is little research-based evidence to either support or disprove those claims.

Research Design

A qualitative study was designed to explore:

- Whether, and if so how, employee attitudes towards careers have changed and are changing;
- Whether, and if so how, employees' attitudes toward learning are influenced by a focus on long-term employability;

- Organizational and HRD responses to free agents.

The study used a convenience sample of eleven organizations in the United States (seven), United Kingdom (three), and Brazil (one), with organizations selected because the researchers had access to senior HRD managers, or could arrange access through a third party. The organizations were also selected to cover a range of sectors, organization sizes, and locations, although five of the eleven organizations were banks (two in the United States, two in the United Kingdom, and one in Brazil). That emphasis on banks was included to allow for a comparison between organizations in the same economic sector but different locations (the result of that analysis is being submitted to another conference). The other organizations included a university (US), an environmental consulting firm (US), an electronics manufacturer (US), an energy company (US), a central government department (UK), and a professional association (US). The number of employees per organization ranged from 215 to 110,000.

Information was collected through semi-structured interviews either via telephone or face-to-face. In one case, information was collected via e-mail using the main questions used during interviews. The interview questions focused on four main areas:

- *Careers*: how organizations and employees have changed their view of careers over the past five years; any evidence to support claims that employees are thinking in terms of career portfolios and employability security, and particular types of employees who have changed their approaches to careers.
- *Employability*: how organizations attract and retain employees focused on employability (including support provided on career self-management), and steps organizations take to tackle retention problems.
- *Learning*: steps employees take to enhance long-term employability and the importance of learning; evidence to support claims that free agents focus on developing expertise, networks, and reputations, and how organizations use learning to attract and retain free agents.
- *Role of HRD*: the impact of free agents on HRD functions; how HRD functions are meeting free agents' needs for employability-focused learning and support for self-managed careers; how HRD is working with other functions/systems to support the organization in attracting and retaining free agents, and the impact of free agents on the trainer's role.

In each case, interviewees were senior training managers, HRD directors, or vice-presidents. Interviews were audio recorded and transcripts produced. Basic data analysis overlapped with data collection to allow researchers the opportunity to adjust the interview protocol where necessary and to allow emerging themes to be explored in later interviews. Data analyses were completed within-cases and between-cases. Within-case analysis was based on typed transcripts of all interviews, allowing researchers to become intimately familiar with each case as a stand-alone entity. Patterns emerging from each organization were compared against those coming from the other organizations and classified using the four broad research issues described above.

Limitations of the research result from selection and interview methods. Participants were chosen because of their availability and willingness. Interview method, whether by phone, in person, or e-mail, differed depending on geographical location. In order to overcome these limitations, the authors maintained anonymity to encourage full communication and applied the same question format across organizations.

Findings

Employee Attitudes Towards Careers

Nine of the eleven organizations reported how some of their employees were changing their approach to careers in the direction of free agency; that is towards an increased focus on long-term employability. Both exceptions were located in the United Kingdom (one public sector organization and one bank) and both reported very high employee retention rates (98 per cent per annum in one case). With these high retention rates, employees were reported as still thinking in terms of careers within the organization. For the public sector organization, the interviewee claimed that the concept of portfolio careers did not seem to apply, except for high potential employees.

The other organizations in the study all reported changes to employees' views of careers, with interviewees, for example, describing how employees no longer view their organizations as providing a job for life, and that it is increasingly difficult to retain skilled specialists. As interviewees described, "employees are increasingly skeptical and cynical following a series of downsizing and continuing threats to job security," and "employees now focus less on job security and more on employability, and will look elsewhere if they need to – the phrase 'portfolio of skills' describes exactly what these employees are trying to develop." Elsewhere, one senior training manager at a US bank described how, "the bank is realistic about careers – it is a long-lost dream that employees will be with the bank forever;" an equivalent at another US bank described how the organization now "thinks in terms of career development rather than career paths."

Despite the reported change in employees' views, those changes were experienced differently by each organization with not all employees being are focused on employability. For one organization, the majority of employees were described as thinking in terms of a portfolio of skills and maintaining employability security; but for another "only ten percent of employees could be described as free agents." Most interviewees reported that free agent behaviors existed and were most common among specialists such as engineering and human resources, information systems staff, and e-business experts. Such employees tended to be young, in an identifiable profession, and recognized as having high potential.

Link Between Employability and Learning

The interviews produced a range of evidence to suggest certain employees are focused on using learning and development as a means of maintaining employability, with accounts of why employees left organizations proving a useful source. For example, "several years ago, one hundred high tech employees left one of the organizations on the same day because they considered the organization was lacking in that area." Elsewhere, interviewees reported that employees left for a variety of reasons including: to work on important projects, to continue learning, to open up new job opportunities, and to apply their learning where such opportunities do not exist in their current organization. Two interviewees specifically mentioned the problem of not having sufficient opportunities for employees to use their organization-sponsored MBAs, and that consequently the organizations had difficulty retaining such employees. The importance of learning was frequently stressed relative to money, which was mentioned only rarely: "only a small proportion of employees leave because of money. Most leave to advance their careers by seeking a broader range of tasks and experiences and breadth of skills." Another interviewee described how, "High potential employees are less concerned about money and more concerned about development, recognition, and visibility."

There is also evidence that many of the employees who choose to remain with organizations are also focused on maintaining their employability through learning and development. For example, interviewees described how: "employees seek opportunities to learn as a means of opening up new job opportunities;" "more senior employees focus on developing new skills and broadening their experience to make themselves more marketable to other organizations;" and "younger staff working in technological positions seek continuous development opportunities as a means of keeping their skills up-to-date and marketable to this organization as well as others." Where those opportunities are made available to employees, that appears to increase the likelihood of retention; however, as one interviewee described, "there is evidence of a threshold, where employees look inside the organization until they become frustrated, and then they look outside."

Specific comments were made about high potential employees and their concern for development, recognition, and visibility, and about IT employees for whom "training is everything, it is their careers. They want to be prepared for the next set of products. Training is their life-line: it's how they earn their money."

Organizational Attitudes and Responses to Employability

All interviewees described how their organizations were supporting employee skills and career development, whether turnover rates were high or not. One interviewee argued that to "not provide such activities would lead employees to perceive that the organization does not value their contribution, is not helping them with their careers, and is not contributing to their growth."

The two organizations with the lowest turnover rates were among the organizations most active in career development. One of those two talked in terms of building internal employability by helping employees to design their own development programs using access to a wide variety of learning opportunities. The other organization employed career development counselors and was introducing a career development center to assist employees in identifying learning needs relative to career aspirations.

Organizations are taking the following steps linked to career development:

- Career advice: mentoring programs and career development discussions between employees and managers to identify the skills and knowledge needed to enhance careers. Several interviewees stated that their managers would not necessarily give career advice covering options outside of their organization, but that the practice varied between managers.

- Career support: training courses and other learning resources on career self-management. One organization uses a career development process available to all employees to help them manage their career using self-assessment tools and advice on skills development, career trends, and networking. Other interviewees described the use of software packages for career development and 360-degree feedback programs to assist employees in identifying career development needs.
- Internal job markets: three interviewees claimed that retention rates were assisted in part by the wide range of jobs available to employees, to the advertising around the organization of all vacancies, and to the application processes that made it easy for employees to apply for vacant positions and move within the organization.

Three groups of employees were frequently singled out for special treatment by the organizations studied:

- High potential employees: several of the organizations run special programs for their high potential employees. One bank (with around six thousand employees) ran a program for sixty employees it was "keen to retain," although the program is being wound down and some of those employees are threatening to leave, claiming that the program was the main reason they stayed at the organization. Another organization (with around eleven thousand employees) runs a four-year program with around forty employees entering each year; the program involves access to special training courses, high profile work projects and assignments, and dedicated career advice. Despite those programs, several organizations reported that high potential employees were among one of the groups with the lowest retention rates – one interviewee reported that, "high potentials are the employees we most want to retain, and we invest a lot of money in them, but they are not necessarily looking for a career with us, which causes us problems."
- High tech employees: most organizations reported that high tech employees were the most difficult to retain and the most likely to have an employability focus. One interviewee described how the "IT community is absolutely cosseted at the bank – they are the employee group most looked after by the bank." In that case, high tech employees get regular pay reviews and have any concerns dealt with quickly; although according to the interviewee, high tech employees working on cutting edge projects were the least likely to leave because of the strong developmental nature of the work.
- Employees identified as being 'at risk' of leaving: three organizations were described as paying special attention to 'at risk' employees. One of them, a bank, identifies high potential and 'at risk' employees through their HR systems, and then analyzes their reasons for wanting to leave before assessing whether those reasons can be addressed. Another organization identifies 'at risk' employees in middle- to senior-leadership grades, particularly where they have business-critical skills or for diversity issues, with the intention of addressing their reasons for wanting to leave.

No single organization used all of the above approaches as part of their strategy to attract and retain free agents, although a few organizations did use many of them. Where one organization was still looking at introducing approaches, the interviewee claimed that they had been too slow to react and that key employees had left, perceiving greater opportunities elsewhere. As the interviewee described, "we reacted too slowly to demands for increased development through job rotation, job breadth, and working on different projects… the organization's systems have not yet caught up with the reality of employees' career needs."

An interview at another organization indicated that the steps they are taking will not only support retention but also the attraction of potential employees: "our new development programs will show structure, career paths, and show how the organization will provide the training potential employees need." Interviews therefore demonstrated the changing organizational attitudes in attempting to provide developmental opportunities required for employability.

Roles of Learning and HRD in Employee Retention

Interviewees were invited to describe how organizations were using learning to assist employees as they build and maintain their employability. The actions reported included:

- Career-focused skills training, such as providing training in e-business skills to allow employees to compete against external applicants for new and changing jobs.
- Off-the-job development: access to external training programs, tuition reimbursement for educational classes, opportunities for foreign conferences, and special executive programs.
- Moving key employees to "sexy positions" where they work on cutting-edge projects, have easier access to senior leaders, and receive greater visibility; and encouraging managers and HR to take a more flexible approach to job design.

- Giving employees greater control over their own learning, in part by allowing them to design their own learning programs in consultation with their managers, and providing employees with access to a wider range of on and off-the-job learning opportunities.
- Using the full range of media to advise employees of available learning and development opportunities, to provide guidance on networking as a source of development, and make greater use of technology as a means of delivery (particularly intranets).
- Providing greater access to subject-matter experts; "employees want access to experts. It does not bother them whether the experts are internal or external but they must be credible in the eyes of the employees." For one organization, the move to using experts involved making greater use of internal leaders as the deliverers of training.
- Allowing employees to spend developmental periods working at non-competing organizations.
- Linking development programs to performance management and rewards systems.
- Introducing executive development coaches for all senior managers, and mentors for other staff (using senior managers to mentor junior ones).
- Placing greater emphasis on new entrant development, helping them to build an internal network and plan their next career move within the organization (both aimed at increasing retention rates).
- Increasing expenditure on training and tuition reimbursement.

As this list suggests, the interviewees provided evidence of a shift in HRD attention away from training and towards learning and careers. As one interviewee described, "there has been a shift away from employees automatically thinking of training as a learning solution," and another talked of, "HRD becoming the manager of learning and development." At one organization, there has been a clear move towards employee-controlled learning; the view being that the less HRD delivers, the more freed up it is to offer advice on development opportunities, and identify how it can use learning to help the organization move in the direction it needs or wants to go. There, HRD has become the manager of learning and of development. At a second organization, there is more use of non-training learning activities, more courses on career self-management, and career advice provided through the HRD function. A third organization with thirty-five thousand employees has introduced six internal learning consultants who advise team leaders and HR staff on how to invest resources in learning. Their attention is increasingly more development focused. A fourth organization has introduced career development counselors, who offer advice on improving performance, gaining access to needed development opportunities, and improving approaches to getting other jobs.

However, some interviewees stressed a concern that too great of a focus on meeting employee learning needs will draw attention away from business needs. In the case of one bank, around 75 percent of training is for immediate application and not for longer-term development. That organization requires justification for learning and can require that the employee cover the costs of some learning. In addition, the organization is looking to put "handcuffs on certain employees who receive funded training and education in order to prevent them from leaving the organization soon afterwards." An interviewee from another bank also stressed that the business case drives learning activities, and mentioned that the bank is concerned about developing employees if there is no immediate opportunity to apply that learning.

Interviews also identified evidence that HRD is working more with other organizational functions and systems to tackle employee retention issues. As one interviewee stated, "there is an increasing acknowledgement that training is only part of the solution to both retention and performance, and there has been a move towards a more systemic approach to learning and organization development." Examples were identified of where HRD has recently become more active with linking leadership development to succession planning, developed closer links between training course content and competencies used for performance management and in career development centers, introduced new entrant development programs to encourage employee retention, and worked with knowledge management functions to advertise expertise across organizations.

Conclusion

This research largely supported the literature, providing evidence that many, although not all, employees are changing their views of careers and are focusing on employability security. In addition, this research identified some points to supplement existing writing on free agents and highlighted how organizations, and in particular HRD functions, are changing to meet the career and learning needs of free agents. To explore four of the main findings further:

Free agents operating outside of knowledge industries. Previous research stated that the new career model existed predominantly in the software and knowledge industries. This research identified free agents operating in the finance, university, consulting, manufacturing, utilities, and professional association sectors. The research also identified two additional groups of free agent employees: high potential employees (a group not found in existing free agent literature); and younger employees, regardless of their field of work.

The importance of learning to free agents. The research provided evidence to support claims of a link between learning and employability. Where interviewees described employees focused on employability security, they tended to also describe how those employees paid particular attention to their learning and development and list ways in which the organization was adapting to provide the learning and development opportunities being sought. It was not clear from the research whether those steps to alter organizations' approaches to learning would have happened anyway, regardless of the emergence of the free agent in the workplace (for example, one organization had a strong learning orientation despite its 98 percent retention rate).

Career support for employees. The research provided evidence that more organizations are now providing career support to employees, even where the organization does not consider itself as offering a lifetime career to its employees. There is a greater emphasis on providing employees with career self-management support, whether in the form of career counselors, career management training courses, career development centers, access to career analysis software, and so on. Although some of the organizations spoke to HR having responsibility for such career activities, others specifically mentioned the role of HRD, suggesting that HRD functions may be using employees' increased attention on employability as a reason for moving into the career development arena in organizations.

HRD shifting its focus from training towards learning. Most HRD functions appear to be supplementing their traditional focus on training with a broader perspective on learning. That shift is opening up new areas of activity for HRD functions as employees take more responsibility for their own learning, leaving HRD to take on the strategic role on organizational and individual learning. Increased emphasis on using experts rather than general trainers, multiple delivery media for learning, and the movement of key employees into development positions were all mentioned as influencing the role of HRD.

Contribution to HRD

The research reported in this paper only involved a small sample, however the findings do hint at a number of changes across a variety of economic sectors on three continents. Three changes mentioned in the last section were: the spread of free agents across sectors; the increased attention organizations are giving to career support for employees; and HRD functions supplementing a traditional focus on training with a broader perspective on learning. It is not clear from the research whether these three changes are influenced by each other. However, if they are connected, then any further changes to employees' career attitudes are likely to impact HRD functions in terms of an increased role in career support for employees and an increased role for HRD in using learning, development, and growth opportunities as a means of attracting and retaining free agent employees. This research therefore appears to provide some support for the claims made by Short and Opengart (2000) that an increased spread of free agents would require HRD functions to alter their focus of attention, partner with other organizational systems in support of employee attraction and retention, and alter the role of trainers towards that of learning champion and advisor.

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Career Development through Informal Learning: A Review of the Literature

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This paper presents a review of recent studies pointing to the disappearance of career development in contemporary organizations. Other studies included in this review suggest that the need for the career development function still exists. The authors present a model which links the HRD practitioner to a re-formed career development function through informal learning. The authors conclude with several suggestions for future research.

Keywords: Career Development, Informal Learning, Workplace Learning

Recently, we have seen a number of studies indicating that the roles and tasks of HRD practitioners have shifted considerably since McLagan's Models for Excellence study (1989) was published. HRD practitioners are more likely to be described as performance analysts rather than trainers; they join consulting firms which contract in outsourcing rather than work in large corporations as full-time employees; they assist managers in mentoring and coaching their workers rather than serve as instructors, mentors or coaches themselves. Clearly, the role and scope of the human resource development field has undergone some dramatic changes during the past twenty years.

Another role traditionally associated with HRD is that of career development specialist. This role appears to have disappeared almost entirely. In fact, career development programs have undergone such tremendous change that they, too, appear to have disappeared. Is the function of career development gone? If not, where is it, who is facilitating it, and what is its purpose? Technological change and the economic uncertainty prevalent in the current global workplace have clearly impacted the focus of traditional career development programs. Researchers in economics, employment counseling, and public administration have addressed the change in career development and concluded that what was once career development for employees is now career development for organizations (Watts, 2000; Clark, 1992; Feild and Harris, 1991; Schmidt, 1994). Rather than emphasizing the advancement of employees' careers, studies indicate that this function now focuses on the management of a few carefully selected employees' careers for the advancement of the organization. As organizations cut costs, downsized, and developed flatter organizational structures, most employee-focused programs and services have been either drastically reduced or cut entirely. Currently, organizations focus on their own goals rather than on supporting the career goals of their employees. Highly sought-after managers with high potential who are designated for rapid advancement to top executive positions are, in many organizations, the only employee group targeted for fast-track career development programs (Cox and Cooper, 1988).

Clearly, studies on the shift and status of career development, though too few, do exist. What is missing, however, is research focusing on the impact of this shift on HRD. In a study investigating changes in roles and competencies in the HRD field since the Models for Excellence Study (1989), Powell and Hubschman (1999) found that their sample of HRD professionals, when asked to list competencies and roles most important for them in their careers, ranked career development techniques quite low. This finding was supported by earlier studies (Dare and Leach, 1998; Rothwell, 1996, Mager, 1996), suggesting that career development is not an important or even viable role for HRD practitioners today. Why not? If HRD practitioners do not envision that their roles include assisting employees in the struggle to promote themselves or prepare for a new position in a new company, who does? Employers are no longer taking any responsibility for developing employees unless doing so clearly meets organizational objectives. Employees, who have always been expected to initiate their career development strategies, must now take full responsibility for managing them.. However, many individuals who are currently searching for upward mobility, better wages and more satisfying work, have indicated that the tremendous growth of change and instability in the work place has impacted their health and energy (Feller, 1991). London and Bray (1983) found that younger managers were distinctly less interested in leadership or advancement than were managers of thirty years ago due, in part, to work stress and the heavy time

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demands placed on them. Ironically, it appears that at a time when most employees are given complete responsibility for their own career advancement, they may need more assistance than ever before.

In reviewing the literature on the current status of career development in organizations, the authors of this paper make two assumptions:

- HRD practitioners are the most appropriate and qualified group of professionals to implement career development programs and services for today's corporate employees;
- The most effective means for doing this is through the use of informal learning principles and tools.

To facilitate this literature review, the authors of this paper examined learning models that conceptualized the use of informal learning techniques such as coaching, mentoring, and other team and site-based tools often found in learning organizations (Marsick and Watkins, 1990) which could be used to assist employees in their career development goals. The rationale for the use of informal learning models, rather than more formal instructional methods and materials, is consistent with the research supporting the trends toward self-directed and team learning which emerge from learning organizations (Maharry, 1998; Marsick and Watkins, 1990). However, in order for HRD practitioners to justify a re-focusing of their energies and skills on career development, support must exist from the findings of research studies that indicate that informal learning techniques could assist employees in their own career planning. Research in the use of informal learning models for career development would help to (1) categorize the style of learning engaged in by career development-focused individuals, (2) re-define the role of HRD practitioner as mentor and coach, as well as instructor, and (3) define appropriate methods that can be used to motivate and encourage employees who are struggling to advance in an increasingly turbulent work environment. Theories describing career development and the informal learning process have assisted in explaining how each of these processes emerge. These theories and models can direct research and practice. The review of the literature addresses the following research question: Do current theories of career development and informal learning provide us with a framework by which to address the career development needs of employees in the 21st century?

This paper reviews the literature framing the theories of career development and informal learning. The purpose of this review is to determine the extent to which HRD practitioners could adopt informal learning techniques currently used in organizations to meet the career development needs of employees. In order to serve this purpose, the authors analyze bodies of literature from organizational learning theory, career development theory, and informal learning theory. In addition, the authors discuss some themes emerging from transcripts of interviews held with human resource administrators at corporate and non-profit organizations. It is our intention to use these themes to support or question some of the conclusions from the literature and provide some focus on our discussion and recommendations for future research.

Criteria and Sources

We selected the review literature from ABI/Inform, PsychLit, Electric Library, and ProQuest, with particular emphasis on journal articles and texts published since 1996. Upon further reflection, we included pertinent literature published prior to 1996 to serve as a background for the premises and findings of the later studies. All of the research studies included in the literature review were published in refereed journals, with one exception. We began our search of the databases with terms including workplace learning, career development, training, independent learner, informal learning, learning styles, management development, management learning, and human resource management. We ultimately focused on three key areas: career development, informal learning, and workplace learning. We reviewed 44 references. Of these, we selected 28 that addressed our research question.

Review of the Literature

Merriam and Simpson (1995) propose that the purpose of a literature review is to summarize previous work on a topic and then make suggestions for future research. Utilizing this framework, the authors of this paper review the literature's findings on the current status of career development in U.S. companies and its impact on employee developmental needs, review current theories and studies on the role of informal learning in organizations, provide a foundation for investigating the use of informal learning in providing for employees' developmental needs, and, finally, suggest how HRD practitioners could serve as facilitators in using informal learning techniques to meet employee's developmental needs.

Current Status of Career Development

In the current work environment, organizations offer workers few employment contracts resulting in long-term commitments (Knowdell, 1999). When the pyramid structure was in place, promotions served as the vehicle to shift an ambitious employee up the traditional ladder; today, however, for most employees, there is no ladder to climb. As further illustration of this situation, the authors of this paper conducted four interviews with profit and not-for-profit organizations in the southeastern United States. All respondents indicated that their career development programs were offered primarily to employees being groomed for top leadership positions or to support employees who were being prepared to assist in professional fields where critical shortages exist, such as nursing and nursing support positions. The respondents also indicated that career development is linked to an employee's annual performance review. In other words, employees must first show that they are performing effectively in order to qualify for career development opportunities.

To be effective, employees must be given information to perform their jobs adequately. To advance in an organization, however, employees must be given much more comprehensive and deeper knowledge about the total system and how they, as workers, fit into overall system objectives. For example, in the re-engineering team environment, employees commit to (1) the process to be re-engineered, (2) the customers the process serves and (3) the team itself. To this end, the employee should no longer feel loyalty to the former department or boss and should not be expected to return to the former assignment. Without a real understanding of the re-engineering environment, however, employees may see little chance for advancement, leading to a greater dissatisfaction and turnover (Hammer, 1995). There is evidence that employee dissatisfaction with career advancement is not a new phenomenon. When consultants for Fortune 500 companies surveyed employees and their managers, the greatest discrepancies between perceptions of managers and subordinates lay in questions relating to career opportunities; employees clearly felt that their managers were not helpful in planning their career opportunities, giving them timely and honest feedback and coaching them on performance (Bradford and Cohen, 1984). In a more recent bank study, Antonacopoulou (1999), who recently completed a three-year longitudinal study of the three largest banks in the UK, found that while all three banks had career development mechanisms in place, only one of the three promoted individual learning Additionally, many of the respondents in the study indicated that there was a close link between rankings on their performance evaluations and the extent to which they engaged in developmental activities. These findings highlight the dilemma of reconciling individual and organizational learning needs.

Informal Learning

Informal learning techniques have been advocated for adult learners for some time. Malcolm Knowles (1980) whose theory of andragogy advocates that adult learners are motivated by an environment that encourages them to be independent and self-directed learners, suggested that learning should convey a "spirit of mutuality between teachers and students" (p.47). More recently, Knowles, Holton, and Swanson (1998) and Mailick and Stumpf (1998) affirm that experiential learning is more effective than passive learning for integrating new learning and research studies which have investigated the use of experiential learning to enhance transfer of learning into performance support these hypotheses (Holton, Bates, Seyler & Carvalho, 1997). Currently, with the organizational community facing reorganization, downsizing and the constant evolving of job descriptions and roles, formal learning, implemented usually through training classes and workshops, is diminishing; informal learning has become the mindset. The results of a study completed two years ago (Maharry, 1998), indicate that perhaps as much as 70 percent of employees' learning needs are fulfilled through informal learning. The study also found that informal learning is most effective in teams, in casual meetings and in contact with customers. Bechtold (2000) acknowledges the convenience of informal learning experiences such as on-the-job coaching or a team meeting. "Informal learning also occurs when group members share their individual knowledge and experiences with each other in the hallway or when groups come together to fix a customer issue" (p.12). Sisakht (1999) suggests informal learning mechanisms such as the cognitive apprenticeship, which is an on-the-job learning experience where the learner is assigned to an expert who assists in the development of complex cognitive skills; mentoring, which can include orienting the mentee to the sociopolitical aspects of the organization or coaching for job related tasks; and internships, which can extend learning internally by providing opportunities for work in other departments or divisions.

In addition to being more convenient and accessible, informal learning can be powerful. Beckett (2000) distinguishes between traditional, classroom training which offers propositional knowledge, or 'knowing that x' and tacit knowledge or 'knowing how x' (Ryle, 1949). This kind of knowledge refers to learning through and at workplace experiences (Beckett, 2000), and assumes the idea of 'whole person' or organic workplace learning.

Through this kind of learning, employees not only acquire cognitive and psychomotor skills but social and affective skills, at well. Organic, or whole person learning impacts and is impacted on by others since employees are part of a complex network of relationships. Obviously, this level of meaning results not only in employee growth, or team growth, but organizational growth as well. Beckett suggests several structures which encourage organic learning: mentoring, which enhances interpersonal skills such as problem-solving, communicability, and team membership; project management, which develops conflict resolution, task analysis and time management; and competence, which enhances the employee's professional expertise. Torraco's (1999) study on changes in how workplace performance is learned supports the importance of tacit, or organic learning. "The distinction between learning and working has significantly eroded in today's workplace. Skilled performance in the work roles described would not have developed if workers had not had the benefit of learning in the context of their work" (p. 255).

Can Informal Learning Restore Career Development?

The idea that informal and incidental learning could be adopted to serve individual career development needs has been proposed before. Bechtold (2000) points to the "social interaction and network of connections" (p. 13) which supports most informal learning activities. In fact, activities such as team meetings, on-the-job coaching sessions, "lessons learned" sessions, or even casual get-togethers in the employee cafeteria are productive to the extent that skills in dialogue, reflective listening, time management, facilitation and train-the-trainer are developed and enhanced. The importance of acquiring skills such as these is obvious; what may be more interesting is that these skills are acquired through learning-by-doing-from-using knowledge (Bechtold, 2000). When we learn with others by doing and then reflect on this experience, we develop shared meanings. This process allows for enhanced interpersonal skills and, to accompany that, enhanced esteem and confidence. We suggest that this is the type of individual employee learning which leads to organizational learning. As an added factor, this type of learning can, ultimately, lead to career advancement for individual employees.

Bechtold (2000) recommends using the development professional as the most likely practitioner to facilitate the employee's journey from "conceptual to systemic to operational to shared tacit knowledge" (p. 16). For example, trainers can easily adapt classroom teaching skills for team meetings or project sessions, introducing concepts in time management or goal-setting. As another example, instructional designers could coach team leaders in preparing lessons plans for teaching new technical information to team members. The objective would not be to instruct employees, an objective linked to formal learning efforts. Rather, the intent would be twofold: (1) to generate a culture that nurtures organizational learning, and (2) to assist employees in transforming their knowledge, learned informally through shared meanings, into career advancement.

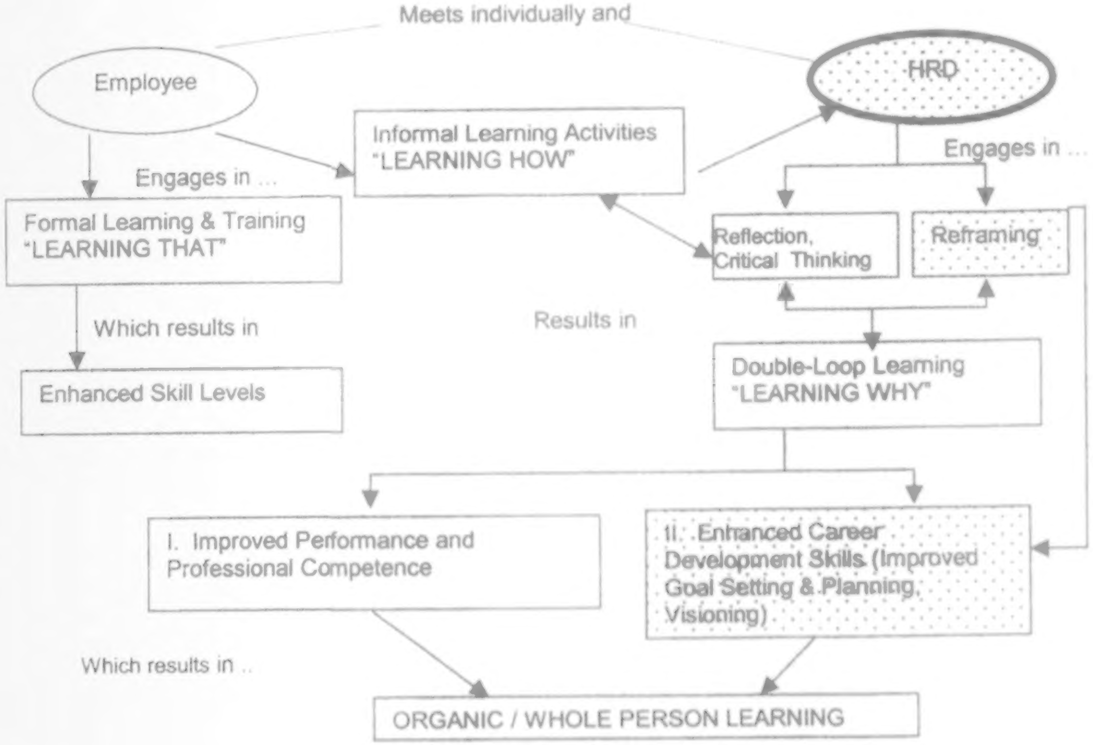
Watkins and Marsick (1997) cite the need to move away from the rigid behavioral definitions of the roles of Human Resource Developers as identified in the ASTD competency study (McLagan, 1989) and the need for a broader, conception of Human Resource Development that embraces informal and incidental learning. HRD practitioners will facilitate individual learning activities by enabling individuals to be more effective continuous learners, facilitating team learning and overcoming barriers to collective learning. This conceptual change will require the career developer to reflect upon the traditional definition of success and teach employees to think systematically and learn from experience. It also requires a significantly more strategic role working with corporate boards to provide incentives for employees to be continually renewed and challenged.

Garrison, cited in Merriam and Cafferella (1999) proposes a self-directed learning model that allows learners to take control and shape the conditions of learning to reach their stated goals and objectives. This process would allow learners to become "self-monitoring", or able to think about their thinking, similar to reflective or critical thinking. In Garrison's model, learning would take place through a process which includes self-management, or self-control, and self-monitoring, or responsibility. We envision a similar process with an added component: the HRD practitioner as a catalyst who would assist the learner in shifting their 'learning that x' to 'learning how x' (Ryle, 1949) and then, on an even more profound level, to 'learning why x' (Beckett,2000). The 'learning why x', or analytic learning, which we envision emerging particularly through the reframing process, is the most meaningful level of learning in the sense that it includes cognitive knowledge and ownership of tasks and abilities, but allows understanding and appreciation for appropriate affective workplace learning. The employee would be able to demonstrate competence in cognitive, social, and affective dimensions of workplace life. The result for the employee is whole or organic learning (Beckett, 2000).

A Proposed Model: A Re-Creation of Career Development via Informal Learning

After reviewing the literature on current career development practices, organizational and informal learning theories, we offer a model which demonstrates how these theories can serve as a framework by which future researchers can pursue two lines of inquiry: (1) the present and future performance needs of employees and (2) the enhancement of a key role for HRD practitioners.

Figure 1. Re-Creation of Career Development via Informal Learning


Meets individually and
Employee
HRD
Informal Learning Activities "LEARNING HOW"
Engages in ...
Engages in ...
Formal Learning & Training "LEARNING THAT"
Reflection, Critical Thinking
Reframing
Which results in
Results in
Enhanced Skill Levels
Double-Loop Learning "LEARNING WHY"
I. Improved Performance and Professional Competence
II. Enhanced Career Development Skills (Improved Goal Setting & Planning, Visioning)
Which results in ..
ORGANIC / WHOLE PERSON LEARNING

In the model, the link between the employee and the HRD practitioner is found in the "LEARNING HOW" activities, during which employees engage in reflection, critical thinking and reframing. These are activities that require a facilitator such as an HRD practitioner who is skilled in process activities and who can then assist the employee to shift to a more intense level of learning, "LEARNING WHY". At this level, individuals learn to integrate the original learning experience into both professional and personal aspects of their lives. The literature suggests that at the LEARNING WHY level, individuals can claim ownership to more than the cognitive and psychomotor skills acquired through engaging in the learning activity, or to even more than the social and affective skills acquired through their enhanced understanding of the system and how relationships form in the system. At the LEARNING WHY level, employees acquire greater self-efficacy and self-respect, allowing them to engage in greater risk-taking and experimenting. At this level, individuals are capable of assuming greater responsibilities and more difficult tasks, resulting in significantly improved performance. At the same time, employees are also more prepared to set more difficult and ambitious career and professional goals. Regardless of the direction taken, the result for the employee can be a more fully functioning, more complete human being.

The literature strongly encourages the use of informal learning techniques to improve organizational learning. For organizations to learn, Bechtold (2000) suggests, employees must acquire a deeper level of learning, one that includes, in addition to knowledge acquisition and sharing, the more difficult and profound levels of knowledge generation and application. Bechtold (2000) urges organizations to select professionals who would coach employees in developing the skills and knowledge acquired through informal learning techniques into a broader framework, allowing them to generalize their learning; He also recommends the use of reflection as a means for deepening their learning. The literature suggests that development professionals be used as the channel, or filter, moving the learner from the specific to

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the general, the superficial to the profound (Beckhard, 2000; Beckett, 2000) We encourage future researchers to investigate how this process could be used, simultaneously, to improve employee performance and re-create the career development function.

Implications for HRD Theory and Practice

Merriam & Simpson (1995) define the purpose of a literature review as "a means of conceptualizing, justifying, implementing, and interpreting a research investigation" (p.33). With this purpose in mind, we suggest that this literature review indicates the need for additional research to determine the extent to which there are links between informal learning techniques, career development, and the HRD practitioner-as-reflector and filter. Both HRD scholars and practitioners know of the close link, historically between the HRD field and the career development function. We believe that this literature review suggests that this link should not be broken. We conclude this paper with some areas we envision future researchers investigating.

Research Areas for Future Investigators

The implications for research linking career developments models for 21st century organizations with informal learning mechanisms and HRD practitioners are boundless. We include some of the more promising areas below:

- Whether present-day HRD practitioners are willing to facilitate the career development function, and, if so…
- What additional skills they must acquire to serve in that role
- How the processes of reflecting, critical thinking, and reframing are defined by HRD practitioners and the type of activities they perceive as appropriate and effective for enhancing these processes in employees
- The financial implications for implementing this model, or other models, in the workplace.
- The extent to which evidence supports or refutes the use of double-loop learning mechanisms to enhance employee performance.

Summary

The authors of this paper have reviewed the literature on the current status of career development in U.S. companies and its impact on employee development needs. Current theories and studies on the rule of informal learning in organizations, along with interviews of Human Resource executives, have led to the development of a proposed model – a re-creation of career development via informal learning – in which the HRD practitioner is the filter or catalyst who assists, through the reframing process, employees in enhancing their career development skills in improved goal setting and visioning, resulting in whole person learning for the employee and enhanced performance for the organization.

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The Influence of Theories of Action on Action Research Initiatives: One Dying Division's Case

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The purpose of this interpretive case study research is to illuminate how individual, team, and organizational practices and theories of action influence participation in and outcomes of action research initiatives. Findings, based on in-depth interviews with action research team members, and conclusions, based on the action science analytical framework, suggest that participants designed and implemented actions that resulted in unintended consequences, limited learning, and ultimately, the demise of the action research team.

Keywords: Action Research Application, Action Science Application, Theories of Action

This study arose from an agreement between a University Adult Education Program and Southwest Technologies (ST), a high-technology company. The contract, which was to last three years, stated that University faculty and a research assistant would provide training and change facilitation for the STRIPE division. An action research team, comprised of eight manager-selected STRIPE employees and the research assistant, would monitor the implementation of quality and empowerment strategies. After initial training, Action Research Team (ART) members chose to focus on cultural norms of challenging non-value-added work. They developed a written survey to distribute to 70 of the 500 employees, yet only two STRIPE members disseminated them to their work groups. Six questionnaires were returned. After discussing frustrations about team processes and team leadership at multiple meetings and analyzing the small amount of data, members created individual projects to study specific occurrences of non-value-added work, which ultimately produced minimal insight or action. Several months later, they followed the request of a manager to interview 10% of employees about frustrating and positive characteristics of STRIPE. Over the next few months, participants collected and analyzed over 100 critical incidents. One year after beginning the initiative, ART members met with management to present findings, reflect on learning, and secure support and direction. After a team presentation and management response, the meeting ended with no decisions about the team's future. In the ensuing weeks, managers decided they would not refund the initiative, arguing that they had not seen enough progress. Less than 12 months after the termination of the action research initiative, Southwest Technologies shut down the STRIPE division and laid off hundreds of employees.

This paper explores how team members' theories of action affected the course of the action research team and contributed to its demise. It illustrates how individual, team, and organizational practices influenced participation in and outcomes of the action research initiative.

Problem Statement and Research Question

Theorists and practitioners espouse the value of using action research to create organizational change. French and Bell (1990) note: "The payoff from a good action research project is high: practical problems get solved, a contribution is made to theory and to practice in behavioral science, and greater understanding grows among scientist, practitioner, and layperson" (p. 60). Action research studies, however, generally focus on interventions at the team or organization level, affording a limited theoretical base from which to draw conclusions about individual practices. Thus, literature fails to document how individual practices influence action research initiatives. Kemmis and McTaggart (1988) outline three elements that are critical—on individual and social levels—to implementation of action research: language; activities and practices; and social relationships and organization. Yet what practitioners actually say and do and how they create meaning has not been documented. In order to understand how individuals engage in action research, this study uses the action science analytical framework to analyze individual team member contributions and to illustrate meaning making. It addresses the issue of involvement—a Lewinian requisite—more thoroughly than previous studies. The study illuminates how team members affect and experience action research. It answers the research question: How do individual, team, and organizational theories of action influence action research initiatives?

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Theoretical Framework

Argyris (1989) identifies action science as a form of action research. Action research follows a cycle of planning, acting, observing, reflecting; similarly, action science follows a cycle of testing, listening, learning, testing (Argyris and Schon, 1996). It views humans as designers and implementers of their actions and acknowledges language as the basic form of action (Argyris, 1989; Argyris & Schon, 1996). Ultimately, according to Argyris, its purpose "is to produce valid generalizations about how individuals and social systems...can design and implement their intentions in everyday life" (p. 469). Action science addresses the nature of explicit and implicit cultural activity and aids in explaining reasoning that governs actions (Schwartzman, 1993). The reasoning depends upon one's theory of action, which Argyris and Schon (1987) define as deliberate human behavior informed by a theory of control. In other words, it provides a value system for managing and designing one's action. Theories of action are comprised of espoused theories (what we think or say we do) and theories-in-use (what we actually do). While these match at times, they frequently do not in potentially embarrassing or threatening situations. During challenging situations, defensive reasoning may inhibit our ability to act in accordance with our espoused theories. Our strategies may reflect a dilemma that prevents rational reasoning and action (Brooks & Watkins, 1994). Human behavior is driven by theories-in-use, although we may not be conscious of them. They generally remain tacit, yet when they become explicit, they provide the opportunity to transform our action and engage in significant learning.

When defensive theories-in-use remain unchallenged, they may result in Model I behaviors. Argyris (1987, 1989) proposes that four governing values underlie Model I: achieve the purpose as the actor defines it; win, do not lose; suppress negative feelings; emphasize rationality. When we act out these values, we exert unilateral control over our environment while also protecting ourselves. While we may learn to change behaviors, we do not change underlying values. These strategies generally result in unintended consequences, and little learning occurs. Other consequences include defensive interpersonal and group relationships, low freedom of choice, and reduced production of valid information (Argyris et al., 1987). In contrast, Model II theories-in-use rely on valid information; free and informed choice; internal commitment to the choice (Argyris, 1987, 1989). Acting out Model II allows us to share control in order to produce valid and useful information; we are able to reflect on underlying values and design effective, consonant actions. Model II conduct results in minimally defensive interpersonal and group relationships, high freedom of choice, and high risk taking (Argyris, 1987, 1989). It greatly increases the probability that outcomes match intentions. To inform inquiry into theories of action, data collection consists of creating a case that contains the recollections of actions and speech by the actors and the identification of reasoning and rules that govern actions. Data analysis consists of discovering the meanings embedded in the action and representing the knowledge thus acquired in a way that is both disconfirmable and actionable (Watkins, 1991).

Methodology

This study utilizes the qualitative methodology of interviewing to uncover theories of action. The value of qualitative investigation generally resides in the discovery of human experiences as lived and perceived by subjects (Sandelowski, 1986). Walker (1995) says to understand other persons' constructions of reality, we need to ask them in such a way that they may tell us in their own terms and in depth. Interviews used the critical incident technique, a type of story-telling that identifies participant experiences. It is an especially informative way by which individuals express their understanding of experiences (Flanagan, 1954; Laird, 1985; Mishler, 1986). Because critical incidents are accounts described by people about actions in their own lives, they are incontrovertible sources of data representing their own existential realities (Mezirow, 1990). The interview purpose was to uncover team members' reconstructions of persons, events, activities, feelings, and concerns as experienced in the past (Lincoln & Guba, 1985). The goal was to elicit the unique and personal viewpoint of each participant. With the addition of meaning making, guided by the action science analytical framework, the stories describe the significance, value, and intention of events (Connelly and Clandinin, 1990). Six out of eight team members agreed to participate in interviews, and their employment spans at ST ranged from 13 to 33 years. Four of the six held college degrees.

The interviews were informal and minimally structured to capture each participant's story in his/her own words; they lasted from 45 minutes to two hours. Interviews began with questions about the first time they heard about ART and how they came to join; they proceeded with prompts about team members' recollection of critical incidents. Interview audiocassettes were transcribed in full, and data reduction produced 80 single-space pages of codable transcript. I used Argyris et al.'s (1987) descriptions of Model I, Opposite Model I and Model II to label governing values and looked for perspectives that were repeated within one transcript or across transcripts. In my analysis, I selected representative quotations that clearly characterized a person, the team, or the organization and could illustrate research interpretations.

Analysis of the critical incident interview data is bounded by the interpretive research paradigm that espouses, "All knowledge is subjective knowledge and exists only through an individual perception and the interpretation of reality by the researcher" (Perry & Zuber-Skerritt, 1994, p. 353). Using action science as the analytical framework, this study provides analysis of the interactions from person to person, person to team, and person to organization. Analysis maps display governing values, attributions, and evaluations that became primary action strategies, plus consequences for individual, team, and organizational learning. Argyris et al. (1987) write that maps "describe the tacit logic that informs social action and the implications of this for the behavioral worlds of the actors" (p. 248). The maps include only Model I and Opposite Model I examples because in the history of a team that experienced an aborted action research initiative, Model I reasoning and the inhibitors to double-loop learning are paramount to Model II strategies. Furthermore, no episodes of Model II behavior appeared in the transcripts.

One limitation of the study arises from the fact that not all team members could be interviewed. One participant declined interview requests; another had moved from the area. Other issues stem from the facts that participants did not have the opportunity to confirm or disconfirm the maps and that no intervention was developed from the maps as Argyris et al. (1987) recommend. The limitation, consequently, is that the maps may be considered incomplete (Watkins & Shindell, 1994).

Results and Findings

Progress of action research teams hinges on complex behaviors and their underlying values. Since the nature of action research is social—individuals collaborating to create change—personal values are as significant as problems under study. The character of a team cannot be divorced from the members of which it is comprised; individuals impact the team accomplishments and interpret the process based on their own frameworks. Since action research, essentially, is an approach to learning, we can neither answer the query *How do individual, team, and organizational theories of action influence action research initiatives*? nor consider theories of action and implementation of action research without also considering extent of learning. During interviews, ART members reported experiencing limited learning. Several said they began using the critical incident technique; one said she previously had not known culture could change. Other than those instances, they reported learning nothing. Maps demonstrate, further, that participants designed and implemented actions that resulted in limited learning. By behaving unilaterally toward others and protectively toward themselves, members fostered the defensiveness and mistrust apparent in the quotations. Argyris and Schon (1996) argue that organizational and individual theories of action are interdependent, yet maps suggest that the former have a greater influence on the latter. Members exhibited little trust in the organization; data imply that the mistrust was learned, given the STRIPE culture. They perceived it as hostile, capricious, withholding of rewards, unfair, and, most significantly, dying.

Figure 1 provides examples of member's espoused theories and theories-in-use. Figure 2 presents maps that attribute theories of action, propose a theory of explanation, and outline consequences (Argyris et al., 1987) for six team members, the action research team, and the organization.

Figure 1: Examples of ART Members' Espoused Theories and Theories-in-use

Olga:	*Espoused*: You should always keep an open mind. *Theory-in-use*: There's all these people keep trying to spoon feed this stuff down you all the time, and you're sitting there going, "I'm not interested anymore. You're not giving me anything to fulfill me enough, to want to have the incentive enough to do it!"
Stewart:	*Espoused*: Everyone said, "What goes on in here, what's discussed in here, stays in here." *Theory-in-use*: The coffee talk the next couple days was more reaction to it…it was a demonstration by someone who is not who you would view as being the role model.
Eddie:	*Espoused*: I was glad I participated; I learned, felt good about things. *Theory-in-use*: I just wasn't happy with the team at all. I just never felt good about it.
Charlie:	*Espoused*: I think that people have the freedom to be as empowered as they want to be. *Theory-in-use*: You think you're doing a good job then your manager will come in and tell you something that gives you the feeling, "What am I doing here?"…It's such a let down, you wonder why you exist…I didn't get the support I needed to put things into place.
Naomi:	*Espoused*: They just wanted us to be robots. They would probably love that. *Theory-in-use*: I felt this is what we needed to go do since [the manager] said that. Since he told us to do it, well then that's what we should do.
Norma:	*Espoused*: I don't feel like [Eddie] held any resentment to [getting demoted]. *Theory-in-use*: We had Eddie, who was the head of our building, we would have felt really empowered. But once he was demoted, he felt disempowered.

Figure 2: Action Science Maps

Map Reflecting Individual Practices

Values	Action Strategies	Quotation
·Finish what you start	·Criticize those who do not follow through	*Olga*: They made a big hype about en it just kind of went and fizzled. ST ha
·Keep your commitments		*Olga*: It's like 'We're going to do this to be empowered.' And then all of a s but they never follow through with it.
·Be concrete	·Pursue concrete guidelines	*Stewart*: I think we all wanted to go o can pick them up and feel them and ho
·Be action-oriented	·Pursue action strategies	are. [I need to] learn more about this and we'll be able to take this vague no towards something that takes action. expected to see action. Physical chan
·We don't know what we need to know	·Blame lack of education or information	*Eddie*: I don't think any of us were pr [would need] an awful lot more psych We were a bunch of engineers, we did
·Management can not be trusted	·Question management motives	*Eddie*: There wasn't the patience to k But we could pretty well see it coming but it seemed like they had a program bullet on [management's] form and yo
·Minimize negative feelings	·Create inconsistent messages	*Eddie*: With the team there wasn't no wasn't happy with it all. I never felt g
·Work is unsatisfying	·Minimize personal needs	*Charlie*: It may do you good personal personal satisfaction has very little us do is get your job done and go home really matter whether you feel good a
·Opinions thwart action	·Minimize personal opinions	*Charlie*: There were too many people might be okay for trying to put togeth people feel better, but in trying to ma
·People need to be controlled	·Criticize employees	*Naomi*: People don't follow through with this whole company. People nee Some of the supervisors aren't carefu
	·Frame the employer-employee relationship as a parent-child relationship	*Naomi*: It would've helped if manage these problems. This is what we're g it." If they didn't, put supervisors on That's what it would take to get them from when you were a child. I don't
·Managers want to control	·Criticize managers for not listening	*Naomi*: They all want to do their way their way, and they don't even listen

	Individual Consequences	Team Consequences
powerment then we headed there and s a tendency to do that sometimes. ! We're going to do that! We're going udden they make a big deal about it,	·Negative expectations ·Avoids responsibility ·Defensive relationships ·Sense of hopelessness	·Avoids action ·Self-fulfilling prophecies ·Polarization
ut of there with four or five tools. I ld them and know exactly what they o that at some point an idea will click tion of 'Let's make change' and follow 've heard that team action and I ges, that's what I consider action.	·Low freedom of choice ·Minimizes change ·Decreased reflection	·Minimize learning ·Limits learning
epared to understand what we had. We ology courses, sociology courses. n't have much of that. eep it going. Management stopped it. . It bothers me so much…It's horrible, of the month. Get it going, put a u better have another bullet next month.	·Self-sealing behavior ·Minimized learning ·Avoids responsibility ·Blames management ·Self-fulfilling prophecy ·Sense of hopelessness ·Negative expectations	·Avoids action ·Self-sealing ·Polarization ·Reliance on managers
thing real good, nothing real bad. I ood about the team, but I really enjoyed it. ly, but that's not important, because anymore, and what you're trying to nd do it the best you can, and it doesn't out it. That's not really important.	·Avoids underlying issues ·Undiscussability ·Disempowerment ·Isolation	·Games of deception ·Avoids connection
in there with too many opinions; that er a new concept or trying to make e something happen, it just doesn't work.	·Defensive relationships ·Avoids dialogue	·Win-lose dynamics
on their jobs. That's the whole problem d to be put on disciplinary action. ly watching it, either.	·Defensive relationships ·Negative expectations	·Win-lose ·Polarization
ment said, "Okay, they've discovered oing to do and supervisors will enforce disciplinary action. Then it would work. to do a better job. I mean, kids, that's know why they don't do better.	·Defensive relationships ·Avoids dialogue ·Dependence on external control	·Win-lose ·Dependence on managers
and want you to agree to doing it o other people's opinions.	·Defensive relationships ·Avoids dialogue	·Polarization

·We have little control	·Blame external sources	*Norma*: Other than the learning and g I really have no positive memories of to say…I think we were just fighting
·Leaders don't lead effectively	·Blame ·Make attributions	*Norma*: [Eddie] caused team to be dy the right track for so many months an the wrong track, you're just flabberga between [Eddie] and up above wasn't on his own and never looking at the v
·Suppress negative feelings	·Create inconsistent messages	*Norma*: We were working in a dysfu team was, a really good family.

Map Reflecting STRIPE Action Research Team

Values	Action Strategies	Quotation
·Avoid real issues	·Discuss peripheral problems	*Eddie*: We had open discussions on p headway. We did have some discussi
·ST does not value people ·Don't trust managers	·Show false interest ·Make attributions	*Naomi*: We attempted to try to make was the team. Management would as but when it comes down to it, "We're
·ST is rife with incompetence	·Blame ·Remain cynical	*Charlie*: ART was as disorganized as was going on outside. Everybody pull
·Strong individuals cannot work together, but I can try to make them	·Blame ·Believe you can control others	I just never did get the team to work a *Eddie*: They were all leaders in their I never did get them together. I'm dis

Map Reflecting Southwest Technologies

Values	Action Strategies	Quotation
·Work hard, even if I'm spinning my wheels or it's futile	·Work harder	*Norma*: All of us were already spending team, we were spending 50. I don't thin important management would give you thought "Is this worth it, are we going to if there was any way they could help the
·Blame managers		*Charlie*: Everybody pulled in [opposite] doing his own thing, "I know how to do
·Ignore problems		*Naomi*: [I thought] we could develop th managers that there were problems actu
·Blame employees		*Naomi*: [Supervisors] are in the hot seat do what it's supposed to, management s
·Pseudo-autonomous work group has no autonomy	·Follow management edicts	*Naomi*: [We needed to interview emplo that's what we should do. We didn't re
·Every one is out for himself	·Blame	*Eddie*: There was such a lack of cooper There was no line of command. It was t
·Our organization is dying		*Eddie*: It was a dying business, they ma market]." It was doomed from that day

oing to the courses to learn the tools…	·Avoids responsibility	·Camouflage
what this team did. It's a shame	·Sense of hopelessness	·Self-sealing processes
a situation here.	·Self-sealing behavior	
sfunctional… You think you're on	·Defensive relationships	·Polarization
d hear that you're completely on	·Avoids responsibility	
sted. The networking or communication		
there. Maybe he was off doing things		
sision from above.		
ctional family… That's what our	·Avoids underlying issues	·Games of deception

	Team Consequences
roblems but they were peripheral …it didn't help us make	·Inaction
ons and we had some disagreements but they were superficial.	·Invalid information
the people feel we were interested in how they feel. But that	·Polarization
k people to make it look like they're interested in opinions,	
going to do it my way."	
the organization…nothing different between ART and what	·Learned helplessness
ed in his own direction, and there was no control or leadership.	·Inaction
s a team. The ones I picked were pretty much individualists.	
areas. They all worked. I've seen them work good on other teams.	
appointed in that. They were still individuals instead of a team.	

	Organizational Consequences
45 hours a week here, minimum. By being members of this	·Employee burnout
k we were given time to do what we needed to do. If it was truly	·Polarization
ime and put people on it who were assigned to work. All of us	·Resentment
get anything out of it?" We kept going ahead because we thought	
company or help people, we were going to try it to the very end.	
directions…We had managers, everyone was a Don Quixote,	·Polarization
that."	·Resentment
e orientation to get problems solved or just the attention of	·Mistrust
lly going on. I don't think they realized what was going on.	·Cynicism
If he does good, fine. If he does bad, our center doesn't	·Resentment
ays, "It's your fault." It's not one person's responsibility.	·Polarization
yees] since Kirk said that. Since he told us to do it, well then,	·Learned helpless
lly have a choice because that's what he wanted to see.	·Disempowerment
ation. Everybody was out primarily to impress management.	·Win-lose dynamics
here but everybody ignored it, [management] encouraged that.	
de it, when they said, "No, we're not going to be [in a particular	·Job insecurity
on. We made some good product, but it was still doomed.	·Limited loyalty

Team members may have engaged in Model I behaviors to cope with embarrassment they experienced working with the team (Argyris and Schon, 1996). Indeed, two admitted they were embarrassed to be on a team that failed to deliver what it promised. Model I behaviors also were triggered by their attempts to meet the challenge of changing the STRIPE culture, and participants experienced conditions that encouraged the production of error: vague, unclear, and scattered information, inconsistency, and incongruency (Argyris, 1992). Team members reported facing these conditions among themselves, from team leaders, from top administrators, and from the action research process, itself. They considered the methodology of action research vague; the vision from administrators unclear; the behaviors of administrators inconsistent; the actions of administrators and team members incongruent. From all levels, team members experienced reinforcement of Model I behaviors. One of the predominant forms of the Model I theory-in-use was engaging in blaming activities. As the maps convey, team members assigned blame to one another, upper managers, other employees, organizational culture, and education and educators. Participants pointed to a multitude of things that other people did or said as a way to excuse their personal actions or team actions.

Conclusions and Recommendations

Based on their perceptions of each other and the organization, team members must have felt that their ability to create change was threatened. This suggests that participants may have viewed their membership as a threat, as well. Although they identified constraints to the project during its incipient stages, they were unable to minimize the impact. Their responses arose out of the status quo, the usual way of working, and their attributions fit predictions in which change would be unlikely (Argyris & Schon, 1996). Attributions and comments indicate two overwhelmingly apparent intentions: dominate and avoid domination or win, and not lose (Argyris, 1989). Two issues stand out. First, any attempt to dominate is an un-democratic act, counter to norms of action research. In a democratic team, members interrelate with shared power, yet ART members' remarks suggest they felt unequal to one another, which is antithetical to Lewin's ideology. What led them to experience inequality when most were on comparable levels in the STRIPE hierarchy? Second, as team members asserted, Southwest Technologies rewarded domination. How can an organization that rewards domination simultaneously engage in action research? Team members were caught in the paradox. If they behaved on the action research team as they did on other teams, i.e., dominating, they perceived they would gain something or at least not lose anything. Yet they polarized each other, which led to ineffectiveness and limited learning. If they acted collaboratively and democratically, then ART would be at odds with STRIPE culture. This also would lead to alienation and ineffectiveness within the larger system. "Incompatibilities in organizational theories-in-use tend to be expressed in interpersonal conflicts, which individuals live out in terms of win/lose games" (Argyris & Schon, 1996, p. 91). Consequently, team members fell into patterns of domination and attempting to avoid domination. Thus, attributions such as "extreme," "protecting their own turf," "poor leadership," "dysfunctional," "individualists" pepper the maps.

In efforts to avoid domination, ART members allowed distrust and escalating error to encourage individualism, well illustrated when they splintered and pursued ineffective individual projects. They did not collaborate during those months, yet expressed their highest energy for the team. When they could control their actions unilaterally—choose, plan, and implement their ideas without negotiating—participants thought they were making progress. Kemmis and McTaggart (1988) argue, "Action research is not individualistic. To lapse into individualism is to destroy the critical dynamic of the group" (p. 15). Marsick and Watkins (1994) believe individualism presents a barrier to community and collaboration. What happens when teammates never supersede individualism? As these two references intimate, individualism either leads to or results from self-protection. This signals a second paradox trapping the team. In either case, individualism inhibits the ability of teammates to learn and create change. Indeed, ART showed few signs of functioning as an action research team. Members struggled with their work, but neither examined their approach to the struggles nor looked critically at problem solving methods; nor did they evaluate and modify internal functioning (Mink et al., 1979). ART was not the self-critical community that could lead to improved practice (Kemmis & McTaggart, 1988); nor did members participate as both subjects and objects of research (Miller, 1994). This implies a third paradox. If they reflected on their methods, members could have established a potent collective voice; if they felt a strong team identity, they would have had the motivation and trust to explore their practice. Argyris (1989) notes that the first step in any such research undertaking is to:

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> activate and surface inner contradictions embedded in everyday actions. But the essential feature of inner contradictions is that they are hidden by layers of taken for granted action. These layers of action, and any defenses that surround them, must be unpeeled. But to unpeel them requires that people become aware of defenses they use to keep these actions from surfacing into their awareness (p. 475).

Managers invalidated ART–and camouflaged they were doing so–when they said they had not seen enough progress. They consequently created a greater degree of defensiveness and disempowerment in a team they claimed they wanted to empower. Maps support that the ambiguity, inconsistency, and defensiveness of managers and team members led to ART's untimely end. This becomes curious in light of Argyris and Schon's (1996) comment that the "scientific cycle of hypothesis forming and testing…comes appropriately to a close when their inquiry enables them to achieve their intended results and when they like, or can live with, the unintended side effects inherent in their designing" (p. 37). If the undiscussability was designed, as Argyris and Schon's theory would contend, and caused the project to die, it introduces questions about participants' intended results. Did team members and managers achieve a state with which they could live? Certainly, they were familiar with the STRIPE routine of abandoning projects, and the death of the action research project was not unforeseen. Argyris and Schon state:

> When the outcomes of our actions are mismatched to expectations, the inquirer gets an experience of surprise—an experience essential… to the process of coming to think and act in a new way. The attempt to resolve a problematic situation frequently generates new sources of surprise (p. 31).

Data illustrate that team members were not surprised by the team's demise, suggesting that expectations about the possibilities of action research were fulfilled. That is to say, they held little hope for possibility.

This analysis of ART member practices provides evidence that we have much to learn about team member contribution to action research initiatives. To understand more about the influence of individual values and practices, future researchers may want to utilize different analytical frameworks or investigate different arenas. Additionally, the data in the study suggest that team members may vest power in a leader who may constrain or drive the project. Research into the phenomenon of leadership within an action research team may provide better comprehension of the nature of shared power and the character of democratic groups attempting change.

Contributions to Theory and Human Resource Development Knowledge

Through its attention to language, basic tools of both action research and action science, this study contributes to both. Kemmis and McTaggart (1988) assert that patterns of language-use are a reflection of a group and must change if the group is to change. In action research and action science, the use, understanding, and interpretation of words is critical to achieving change; words are an important source of data that make a science of these action strategies. Argyris and Schon (1996) note that theories of action must be identified through the collection of relatively observable data. Traditionally, action science maps have failed to include these data, depending instead on inferences and propositions. If words are action and maps represent social action (Argyris et al., 1987), then maps require language-in-use for illustration. To address weaknesses posed by traditional action science maps and to strengthen their validity, this paper proposes another element: direct participant quotations, which supply directly-observable data that show the language representative of individual theories of action.

This study also explains how practitioners interact with action research on an emotional level; how they make meaning and construct reality. Chisholm and Elden (1993) report that practitioners' "frameworks for understanding and explaining their world" (p. 11) should be a part of action research efforts. Previous studies (e.g., Clark, 1976) allude to the importance of theories of action without exploring them. This study demonstrates how values can influence action research initiatives. Significantly, action research intends to challenge individual values, which is why it is important for practitioners to understand the process on an individual level. According to Kemmis and McTaggart (1988) "it aims to build communities of people committed to enlightening themselves about the relationship between circumstance, action, and the consequence of their own situation, and emancipating themselves from the institutional and personal constraints which limit their power to live their own legitimate…values" (p. 23).

For the human resource development practitioner, understanding both language that inhibits learning and behavior that reflects defensive theories of action may help in preparing for change initiatives. The results of this study remind practitioners that one must expose values and align them with action, that is, align espoused theories with theories-in-use, in order to engage in democratic efforts of organizational change. There is much power in releasing identity in a way that creates truly democratic processes, yet as the data illustrate, there is a great deal of risk, as well.

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Women's Ways of Knowing: A Conceptual Framework for HRD Research

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The lower socioeconomic status of women (compared to men) has negatively impacted professional women. Human Resources Development researchers have not extensively explored gender issues from a feminist perspective. Incomplete research perpetuates the subordinate status of women who comprise a steadily increasing proportion of the workforce. This feminist essay seeks to expand the HRD literature by utilizing the Women's Ways of Knowing conceptual framework to analyze a study abroad experience.

Keywords: Women and Workforce, HRD and Feminism, Diversity

Human Resources Development (HRD) professionals develop and implement multifaceted programs related to individual, career and organizational development in the rapidly changing global workplace (Gilley & Eggland, 1989). However, few researchers have examined HRD knowledge construction, which provides the foundation for complex HRD programs. As the field of HRD emerges, Bierema and Cseh (2000) emphasize the importance of critically evaluating HRD research and issues not addressed by HRD researchers. They determined that research in the HRD discipline had not focused on prevalent workplace issues such as: "diversity, equality, power, discrimination, sexism, or racism (p. 141)." They also summarize research on women in the workplace and explain that "despite more equal opportunity, women are still segregated into typically "female" careers, and the wage gap persists (p. 141)."

Research has been conducted in areas related to gender differences and learning styles; however, there is debate surrounding the type and level of differences between men and women as learners (Fishback, 1999). A list of tips for teaching women was compiled by Fishback (1999) to merge andragogical theories related to both genders. The eleven tips provided by Fishback (1999) include a review of curriculum materials, design of critical thinking exercises, self-examination of gender beliefs, development of collaborative learning opportunities, and awareness of classroom race, class, and ethnicity issues. Hayes and Flannery (2000) indicate that gender differences related to learning have significant implications due to the notable increase of women in formal and informal educational programs. Hayes and Flannery (2000) also acknowledge theoretical differences between feminist scholars and identify the following five interrelated common themes of feminist theory: "how knowledge is constructed, voice, authority, identity as shifting, positionality, or dealing with differences based on the social structures of race, class, and sexuality (p. 157)."

Several researchers have addressed postmodernist, poststructuralist, and feminist perspectives of knowledge construction. Merriam and Caffarella (1999) explain that "postmodernism criticizes the modern conception of knowledge as a set of underlying principles that can explain behavior or phenomena across individuals or settings (p. 349)." Other researchers suggest that power relationships significantly influence knowledge construction and that "modernism privileges some ideas and people(s) and marginalizes others (Cunningham & Fitzgerald, 1996, p. 49). Women have traditionally held less powerful professional positions and a lower socioeconomic status than men have held. The subordinate status of women may have skewed the HRD research focus and knowledge construction toward men's issues and perspectives. Sociological issues were also emphasized by Cunningham and Fitzgerald (1996) in the following reference: "the goal of postmodernism is diversity/pluralism…how an individual or a community constructs knowledge and the type of knowledge constructed are socioculturally dependent (p. 49)."

Feminist researchers have also explored the area of knowledge construction. In *Women's Ways of Knowing (WWK)* Belenky, Clinchy, Goldberger, and Tarule (1986, 1997) conducted psychologically oriented feminist research while interviewing 135 women. They identified seven different *"Ways of Knowing"* and suggest that knowledge is individually constructed and can impact individual empowerment, individual voice, and personal change. The Belenky et al. (1986, 1997) conceptual framework provides the foundation for this essay.

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Problem Statement

The HRD discipline has not conducted extensive research on issues related to diversity, sexism, and power relationships that are prevalent in the workplace (Bierema & Cseh, 2000). Failure to pursue these issues perpetuates the marginalization of groups, such as women, who lack power and status in the workplace. The purpose of this essay is to utilize the Belenky et al. (1986 & 1997) *WWK* conceptual framework for analyzing an HRD graduate study abroad experience to expand feminist research for the HRD discipline. The research question that provides the foundation for this essay is, "How can the *WWK* conceptual framework be used to make meaning of an HRD graduate study abroad experience?"

Conceptual Framework and Methodology

The purpose of this feminist essay is to apply the *WWK* conceptual framework to an HRD graduate study abroad experience to determine if *WWK* can be used effectively as a framework for HRD research. The conceptual framework for this paper is based upon research conducted by Belenky et al. (1986, 1997) that was published in *Women's Ways of Knowing* (*WWK*). The *WWK* authors interviewed 135 women and identified the following 7 *"Ways of Knowing:"* silence; received knowledge: listening to the voices of others; subjective knowledge: the inner voice; subjective knowledge: the quest for self; procedural knowledge: the voice of reason; procedural knowledge: separate and connected knowing; and constructed knowledge: integrating the voices. The *"Ways of Knowing"* will be referenced and linked to personal journal excerpts and other references to analyze the HRD graduate study abroad experience within the *WWK* conceptual framework.

Journal excerpts and lecture notes provide a personal perspective of a mid-career woman's study abroad experience. Fleming and McGinnis (1985) indicate that "journals, essays, and letters are not true autobiography, but they are rich resources to stimulate interest in a person's life, especially in regard to the lives of women…autobiography can offer people who might otherwise be excluded from the dominant culture a way to voice their experiences (p. xiv)." As Denzin and Lincoln noted (1998), "examining issues in equity, power, social structure, agency, self-definition, and their interrelations, so it is argued by feminists, will be enhanced by the writing of all kinds of personal narratives of all kinds of lives of all kinds of women (p. 210)." This essay explores a specific 3-week study abroad experience and does not attempt to reach results that are statistically generalizable. However, this essay raises issues related to international human resources development and women's studies that warrant further research.

Study Abroad Trip

Twenty-three graduate students and professors representing Northern Illinois University (NIU) participated in the 3-week study abroad trip during the summer of 2000. The group included 17 women and 6 men from a diverse group of professions, including: higher education, state and federal government, real estate, health care, military, law enforcement, civil engineering, and human resources. Many participants held mid-level to top-level management positions in their respective organizations. The NIU group met with scholars and business leaders to share information related to current trends in HRD, education, and research in Finland, Russia, Estonia, and The Netherlands. The two-way discussions provided numerous opportunities to compare and contrast North American strategies with European strategies, which provided students and professors valuable insights related to the field of human resources development. The participants also maintained daily journals that described, analyzed and integrated academic, professional, and personal aspects of the study abroad experience.

All NIU participants attended a 2-day professional conference entitled, *"Adult Learning in the New Millennium,"* in Lahti, Finland. The conference was cosponsored by the University of Helsinki and Northern Illinois University. Many scholars and graduate students from Finnish universities, polytechnics and corporations attended the conference. Participants delivered presentations related to a wide variety of international HRD, adult and continuing education research and programs. In addition, several participants arranged to conduct joint research projects with colleagues from other countries.

The author, a 39-year-old female with 17 years of experience in the field of human resources, will use personal journal excerpts, lecture notes, and other references in conjunction with the *WWK* conceptual framework to analyze the 3-week study abroad experience.

Data Analysis and Discussion

The following section addresses the research question, "How can the *WWK* conceptual framework be used to make meaning of an HRD graduate study abroad experience?" Conclusions are based upon a conceptual and qualitative data analysis.

The author will address the research question by categorizing personal journal excerpts according to *"Ways of Knowing"* identified by Belenky et al. (1986, 1997). The *"Ways of Knowing"* and journal information will be linked to study abroad information, human resources skills, and literature to complete the analysis. Notes: *"Ways of Knowing"* are italicized after the journal excerpts throughout the paper; the *"silence" and "quest for self"* *WWK* were not identified during the analysis of the author's journal.

Journal Excerpts

1. "Partnerships are critical to success worldwide. As technology links the world, we also have to remember to maintain relationships with the people who live and work in locations close to us." *(Constructed Knowledge: Integrating the Voices).*
2. "I am a little apprehensive about the experience but look forward to the learning opportunity. I have overcome the fear by analyzing the features of the culture that I have seen so far. I have come to the conclusion that…people are similar across cultures." *(Subjective Knowledge: The Inner Voice).*
3. "We discussed diversity on the level of different philosophical orientations and work practices. We discussed…using the differences as assets." *(Procedural Knowledge: Separate and Connected Knowing).*
4. "The speaker presented excellent models for program planning…I will use the models to plan my projects." *(Received Knowledge: Listening to the Voices of Others).*
5. "It was evident that people conducting cross-cultural training need to be extremely sensitive and aware of the customs of all cultures receiving training. Therefore, pre-training research is critical." *(Procedural Knowledge: The Voice of Reason).*

The journal excerpts demonstrate that the mid-career woman gained knowledge of international human resources, partnerships, diversity and cross-cultural relationships during the study abroad trip. Various levels of *"Ways of Knowing"* were connected with the journal excerpts, which may be attributed to the different levels of knowledge and professional experience the student has in areas related to the various learning experiences.

Issues related to partnerships and technology (1) were primarily connected with the *"Constructed Knowledge: Integrating the Voices"* level that is used when a person "views knowledge as contextual, experience themselves as creators of knowledge, and value both subjective and objective strategies for knowing (p. 15) (Belenky et al., 1986 & 1997)." The *"Constructed Knowledge"* level may be attributed to the student's extensive professional experience in the area of HRD partnerships and understanding of technology issues.

The journal excerpt related to sensitive issues (2) was linked to the *"Subjective Knowledge: The Inner Voice"* level of knowing, which is "a perspective from which truth and knowledge are conceived of as personal, private, and subjectively known or intuited. (p. 15). Due to the sensitive, personal nature of the issues, the student felt most comfortable relying on intuition exemplified by the *"Subjective Knowledge"* level.

The journal excerpt related to viewing diversity in a different manner (3) was associated with the *"Procedural Knowledge: Separate and Connected Knowing"* level identified by Belenky et al. (1997). Analyzing the different perspective of diversity required the student to review her personal perspective of diversity and consider the other scholar's perspective. The student then analyzed the two perspectives, which exemplifies the *"Separate and Connected Knowing"* level.

Analysis of new HRD program knowledge gained by the mid-career woman during the study abroad experience indicates that the student considered new information (4) from a *"Received Knowledge: Listening to the Voices of Others"* level. Belenky et al. (1997) concluded that women using the *"Received Knowledge Way of Knowing"* perceive themselves as receiving information from external authorities.

Information related to cross-cultural issues (5) was linked with the *"Procedural Knowledge: The Voice of Reason"* level. The author has some experience with cross-cultural issues and was interested in "learning and applying objective procedures for obtaining and communicating knowledge," which is typical of the *"Procedural Knowledge"* level (Belenky et al., 1997).

The analysis of journal excerpts using the *WWK* conceptual framework indicates that experience and education can move a person to the integration level of making meaning, which involves creation of knowledge, as well as, subjective and objective *"Ways of Knowing."* Integration involves linking multiple sources of information to comprehend complex situations that are common in multinational work environments. The journal excerpts indicate that the student reflected on HRD issues, including the topic of diversity, and determined that significant value could be obtained through cross-cultural training and partnerships. The student also learned that analysis of cultural data can eliminate preconceived fears that may have been based upon stereotypes rather than factual data about a specific culture. The knowledge of diversity would be a significant asset for a human resources professional responsible for maximizing employee and organizational effectiveness in the global workplace.

Overall, the analysis indicates that different *"Ways of Knowing"* were used to handle different issues. The student's level of experience and nature of the issue impacted the *"Way of Knowing"* used in different situations. The ability to use different strategies to make meaning of issues can be viewed as a type of diversity that can provide a person a variety of problem solving strategies. A repertoire of problem solving strategies increases a person's ability to handle rapidly changing business environments because alternatives are available when a preferred strategy is deemed ineffective and no historical information is available to provide guidance since the business challenge is new.

Several researchers emphasize the critical nature of diverse methods of knowledge construction and problem solving to address the requirements of the dynamic global workplace. As organization structures flatten, Semler (1997) indicates: "organizations will continue to expect employees to shoulder a greater share of knowledge-based responsibility ...employees receive a greater voice in the decisions that affect their economic and emotional lives (pp. 596-597)." Kauppi (1998) emphasized the importance of "transformation of practices...and developing collectively new approaches" of applying knowledge and competencies to new situations (p. 77)." Kauppi's perspective suggests that alternative methods are required to address challenges encountered in rapidly changing technological business environments. Kolb (1998) also emphasizes the critical nature of diversity in the context of learning: "If you are talking about learning it seems to me that diversity is essential for learning. If everything is the same then how do we discover anything new (p. 153)?"

The *WWK* conceptual framework can be used to provide a new method of constructing knowledge in the HRD discipline. Application of the WWK conceptual framework to HRD research will strengthen the HRD literature by addressing gender, power, and sexism issues that have not been extensively researched.

Limitations

Limitations of this essay relate to the scope of the project, limited number of the participants, and criticisms of the conceptual framework. This essay focuses on a specific 3-week HRD graduate study abroad experience and focuses on journal excerpts from one graduate student, which limits the scope and application of the data. In addition, the *WWK* has been criticized as a model that focused on white women (Merriam & Caffarella, 1999). No attempt is made to generalize findings from this essay to a wider audience. However, the essay raises important issues related to HRD and women's issues that could serve as the basis for future research. The limitations could be addressed when the *WWK* conceptual framework is utilized in other feminist HRD research projects.

How this Research Contributes to HRD Field and Implications for Future Research

This feminist essay utilizes a conceptual framework related to *"Women's Ways of Knowing"* (Belenky et al., 1986, 1997) to analyze an HRD graduate study abroad experience. This essay demonstrates that the *WWK* conceptual framework can be effectively applied to make meaning of an HRD graduate study abroad experience. The unique data analysis provides a conceptual framework that may be considered as a foundation for other feminist HRD research.

HRD practitioners can use the *WWK* conceptual framework as a guide for professional development programs. Utilizing the "Ways of Knowing" conceptual framework can assist HRD practitioners with addressing the needs of employees using the various *"Ways of Knowing"* for constructing professional knowledge. Consequently, the effectiveness of HRD professional development programs could be enhanced by application of the *WWK* framework.

Application of new conceptual frameworks can contribute to the breadth of HRD research. The *WWK* conceptual framework could be applied to expand research on the "knowledge-based responsibilities" and "voice" issues addressed by Semler (1997). The *WWK* conceptual framework (Belenky et al., 1986, 1997) could also be linked with Fishback's (1999) tips for teaching to enhance curriculum materials, to develop collaborative learning opportunities, and to raise awareness of gender issues in HRD. The *WWK* conceptual framework could also be applied to expand HRD literature by addressing areas such as diversity, sexism, and power relationships that have not been extensively researched in the field of HRD (Bierema & Cseh, 2000).

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A Critical Review of Research and Statistical Methodologies Within *Human Resource Development Quarterly*, *Academy of Management Journal*, and *Personnel Psychology*, 1995-1999

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Articles in Human Resource Development Quarterly, Academy of Management Journal *and* Personnel Psychology *were reviewed for 1995-1999, and 1975-1979 for the* Academy of Management Journal, *to determine the most used research methods, trends in 1995-1999, to compare methodologies between HRDQ 1995-1999 and AMJ 1975-1979, to provide a description of recent HRD research, and to determine if HRD as discipline is at a similar developmental point as the management discipline was during 1975-1979.*

Key words: HRD Research, Journal Publication, Discipline Development

As HRD moves through the developmental stages of a discipline, i.e. from attempting to define itself, to establishing its theory base, to evaluating its theory base and reaching out to new uncovered territory; it is not only important, but necessary to review the research produced by the discipline, since it is that research which is evaluated as to the value contributed by that discipline. All researchers have a primary task which is to produce research which contributes to their discipline and all researchers have the responsibility to do so in a manner which utilizes the most appropriate methodologies to answer their research questions. Therefore, it is necessary to determine the methodologies researchers in HRD are utilizing and compare these methodologies to closely related but further developed disciplines to assure HRD researchers are utilizing similar types of methodologies to answer similar types of research questions.

Due to a major concentration of HRD research being the desire to increase performance, whether that be of systems or processes or individuals, and the desire of management and industrial organizational psychology to also improve performance, the three disciplines address similar research questions, although from different angles. Therefore, it is appropriate to select a major journal from each area and compare methodologies. This comparison will provide a description of recent HRD research and allow the determination of the point along a developmental continuum which HRD sits and also will allow one to determine how HRD researchers compare to management and I/o psych researchers as far as choice of methodologies, guiding the possible future consideration of and utilization of methodologies which may not be utilized at this point, but would be appropriate to apply in future research efforts to produce more viable research.

Therefore, this research effort set out to conduct a review of research and statistical methodologies for the time period of 1995-1999 for the journals *Academy of Management Journal (AMJ)*, *Personnel Psychology (PP)*, and *Human Resource Development Quarterly (HRDQ)* to provide a description of recent HRD research, determine similarities and differences between types of methodologies reported in the selected journals. And to determine if the discipline of human resource development is at a similar developmental point as the management discipline during the 1975-1979 time period when it reached its twenty-year anniversary. To accomplish these objectives, this study identified the most frequently used methodologies in these journals, identified differences between total methodologies reported by journal and by year, and compared the human resource development and management disciplines.

Previous Research

Previous research including surveys, content analyses and reviews of research and statistical methodologies are sparsely dispersed throughout the organizational research literature (Podsakoff & Dalton, 1987). Multiple searches of various psychology, business and education databases led to only a select few studies which reviewed the research and or statistical methodologies reported by journals within these fields.

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Podsakoff and Dalton (1987) reviewed the 1985 volumes of the *AMJ, Administrative Science Quarterly, Journal of Applied Psychology, Journal of Management*, and *Organizational Behavior and Human Decision Processes*. Within their study, they identify only seven past studies which have recently attempted to examine various aspects of research practices of organizational scientists further demonstrating the lack of research in this area.

Similar research efforts within the educational field have also been conducted and were used as guides for the development of this study due to the deficient nature of the type of research in the organizational sciences. For example, Elmore and Woehlke (1998), Elmore and Woehlke (1988), Goodwin and Goodwin (1985) and Emmons, Stallings and Layne (1990) conducted reviews of statistical and research methods found within top journals within their fields.

Methodology

The discipline of HRD has made many advances since its birth approximately twenty years ago (Holton, 1990). To aid in the determination of methodologies of the HRD discipline and the comparison between this and closely related disciplines, previous research by Coe and Weinstock (1984), Sleezer and Sleezer (1997), and Hixon and McClernon (1999) was consulted to determine journals to utilize in this effort. This research ranked the chosen journals as the leading journals within their fields. The journals chosen include *Human Resource Development Quarterly* (*HRDQ*), *Academy of Management Journal* (*AMJ*) and *Personnel Psychology* (*PP*). In addition to the sited research, each journal places an emphasis on empirical research, contains a variety of statistical methodologies, is published by leading organizations and demands high standards of their contributors.

A five-year span (1995-1999) was chosen to allow the determination of the most frequently used methodologies in the selected journals. This five year period in particular was chosen to allow a current assessment of the state of research in these areas. The researcher also desired to attempt to determine at what point along a research continuum the discipline of human resource development teeters. To determine this, the 1995-1999 articles within *HRDQ* were compared to the 1975-1979 articles within *AMJ*. The discipline of management was chosen for this task because its development as a discipline has been well documented (Holton, 1990). The 1975-1979 time period was chosen because the discipline of management was approximately twenty years old during that time period, therefore it was felt that similar methodologies would appear between the two journals if the two disciplines were at a similar developmental point.

Book reviews, research notes and research forums were not included in this effort. All articles were included except for those conducted using students or the general population as the primary source of data because the researcher was interested in actual research efforts being conducted or proposed within organizations. Over all journals for the years 1995-1999, there was a total of 348 articles reviewed of which 50 used students as their primary source of data and 2 used the general population; therefore, data tables will report a total frequency of 296 articles used for the period of 1995-99. There were a total of 203 articles for the time period of 1975-1979 with 39 using students as the primary source of data resulting in data tables reporting a frequency of 164 articles used.

In order to collect the data, the researcher reviewed the abstract, methods and results sections of each article coding every mentioned statistical and research methodology. Methodologies were then separated into those which aided in the establishment of the study (e.g. reliability testing) and those which were administered to test research hypotheses. Only those methodologies used to test research hypotheses will be reported in the tables which will follow. Many articles reported using more than one technique to measure a similar thing (e.g. an article may have used coefficient alpha and Cronbach's alpha to both measure reliability), therefore both were reported. Methodologies were reported both if they were mentioned in the text and if they were only presented in a table or graph.

Once the methodologies were coded, they were grouped into major categories using Elmore and Woehlke (1988), Elmore and Woehlke (1998), Emmons, Stallings and Layne (1990), Ford, MacCallum and Tait (1986), Goodwin and Goodwin (1985), and Podsakoff and Dalton (1987) as a guide. This grouping resulted in 27 statistical methodology categories and various other related categories.

Reliability has often been reported as a problem in this type of study (Emmons et al., 1990). To check for errors in coding the data and increase reliability as much as possible, all 1999 articles for each journal were reviewed a second time, and a sample of one article per issue of *HRDQ* 1995-1998 were reviewed since these were the first articles coded. There were three errors found - a chi square measure of fit indices was miscoded as a chi square test, and graphical representations and measure of fit indices were not coded for in this initially. All articles where chi square appeared to be coded for were reviewed again and any other corrections were made as needed.

Once all coding and corrections were complete, frequencies were computed by journal for all years, by year for all journals, and by journal by year. Frequency tables were then completed and evaluated to determine most frequently used methods, to search for major changes, and to compare *HRDQ* 1995-1999 and *AMJ* 1975-1979.

Table 1. Methods Used in All Journals

Method/Description	1995 (n=67)	1996 (n=69)	1997 (n=60)	1998 (n=58)	1999 (n=56)	Total (n=296)
Regression - Bivariate, linear, simple, hierarchial, moderated	21	27	14	20	29	111
Bivariate correlation - Pearson and other correlations between two variables	15	28	11	11	14	79
Graphics - Plots, graphs, scatterplots, charts	7	18	6	11	12	54
Multiple/multivariate regression	9	8	6	12	8	43
ANOVA (analysis of variance)	14	6	7	7	4	38
Intercorrelations	6	8	8	7	4	33
t-test	10	8	4	3	6	31
Various measures, criteria and scales	6	7	8	5	5	31
Qualitative methods	8	4	6	6	6	30
Least-squares regression	8	7	5	3	7	30
Various test statistics other than t-tests	11	6	2	2	7	28
Correlation - Multiple, cross-lagged, partial correlations	12	4	1	5	5	27
SEM (structural equation modeling)	7	3	6	8	3	27
Meta-analysis	7	1	4	1	4	17
Logit or probit regression	0	3	7	3	4	17
MANOVA (multivariate analysis of variance)	8	2	2	2	3	17
Chi Square test	5	3	5	3	0	16
Other analysis reported only sparsely	0	3	2	0	5	10
Post hoc comparisons	2	1	1	2	3	9
CFA (confirmatory factor analysis)	3	2	1	2	0	8
Cluster analysis	5	2	0	0	1	8
Event history studies	0	1	2	3	1	7
Transformation	1	3	0	0	3	7
EFA (exploratory factor analysis)	0	1	2	1	3	7
Time series tests	0	2	1	0	3	6
Non-parametric techniques	3	0	0	1	1	5
ANCOVA (analysis of covariance)	0	1	2	0	1	4
WABA (within and between analysis)	0	0	1	1	1	3
MANCOVA (multivariate analysis of covariance)	0	0	2	0	1	3
PCA (principle components analysis)	1	2	0	0	0	3
Canonical correlation	1	0	0	1	1	3
MDS (multi-dimensional scaling)	0	1	0	0	0	1
Discriminant analysis	0	0	0	0	1	1
Distance analysis	0	0	0	1	0	1
Probability	1	0	0	0	0	1

Findings

Methods reported within all three journals for years 1995-1999 are represented in Table 1. The ten most frequently used methods across all three journals in rank order are regression, bivariate correlation, graphics, multiple regression, ANOVA, intercorrelations, t-test, various measures, qualitative methods, and least-squares regression. Also, across all journals for the years 1995-1999, 218 of the 296 articles reported some type of descriptive statistic. Descriptive statistics were not considered here as a statistical methodology, but as a reporting technique. Articles which are completely descriptive in nature are reported as descriptive research.

Reviewing this literature revealed numerous interesting findings overall. To begin with, the most frequently used rotation types used with various types of factor analysis, SEM, and related procedures were reported as (in rank order) oblique, orthogonal and direct oblimin.

A second finding was the large variety of data types reported within these studies across all journals for the five-year period. The most frequently used data collection types in rank order are survey, archival, longitudinal, extant and interview. As a note, archival data was coded as any type of information gained from archives within the organization (e.g. performance reports), extant was any type of information which was gained from outside the organization (e.g. newspapers, government reports), and longitudinal data was any type of data collected over a period of time not specifically reported as time-series data. The total number of types of data used is greater than 296 because many studies used more than one type of data.

A third finding consists of the types of research designs reported across all journals over the five-year period. The main types of designs reported in rank order are descriptive, qualitative, review of literature, repeated measures, and quasi-experimental. A final interesting finding is the reporting of fit indices used in SEM, various types of factor analysis and similar procedures. The most frequently reported measures of fit in rank order are chi square fit index, goodness of fit index, comparative fit index, normed fit index, root mean square error of approximation and root mean square residual.

Methodologies were also calculated within each journal over the five-year period. Methods used in *HRDQ* from 1995-1999 were reported to include ten most frequently used methods across all five years in rank order of t-test, qualitative methods, regression, ANOVA, bivariate correlations, various statistics, graphics, multiple regression, various measures, and exploratory factor analysis. For *PP* from 1995-1999, the ten most frequently used methods over these five years in rank order are regression, intercorrelation, multiple regression, ANOVA, bivariate correlation, structural equation modeling, correlation, various measures, graphics, and various statistics. Lastly, for *AMJ* from 1995-1999, the ten most frequently used methods reported in rank order include regression, bivariate correlation, graphics, least squares regression, multiple regression, various measures, logit regression, qualitative methods, MANOVA, and various statistics.

Table 2. Results of ANOVA by Year

Method	P-value	Tukey post hoc comparison
Bivariate correlation	0.004	*HRDQ* significantly lower than *AMJ*; *PP* significantly lower than *AMJ*
Regression	0.020	*HRDQ* significantly lower than *AMJ*
Graphics	0.020	*HRDQ* significantly lower than *AMJ*; *PP* significantly lower than *AMJ*
t-test	0.005	*PP* significantly lower than *HRDQ*; *AMJ* significantly lower than *HRDQ*
Multiple regression	0.025	*HRDQ* significantly lower than *PP*
Intercorrelation	0.000	*HRDQ* significantly lower than *PP*; *AMJ* significantly lower than *PP*
Qualitative methods	0.022	*PP* significantly lower than *HRDQ*
SEM	0.002	*HRDQ* significantly lower than *PP*
Least square regression	0.013	*HRDQ* significantly lower than *PP*; *AMJ* significantly lower than *PP*
Logit regression	0.014	*HRDQ* significantly lower than *AMJ*
Event history	0.006	*HRDQ* significantly lower than *AMJ*; *PP* significantly lower than *AMJ*

To determine if the methodologies differ by journal, the total frequency of each methodology of each journal was changed to a percentage, followed by the administration of an ANOVA by journal type. This procedure produced several significant differences. The methods of bivariate correlation, regression, graphics, t-test, multiple regression, intercorrelation, qualitative methods, SEM, least square regression, and event history showed significant differences. Table 2 contains the specific p-values and Tukey post hoc differences.

Also, an ANOVA by year was performed on this data set to determine if significant differences between each year of all journals combined for that year were present. Only two methods produced significant differences. MANOVA possessed a p-value of 0.017 with Tukey post hoc differences present between 1995/1996, 1995/1997, and 1995/1998. Within these comparisons, 1995 demonstrated the highest use of MANOVA. The second method which produced a significant difference was other analyses possessing a p-value of 0.030 with Tukey post hoc differences between 1995/1999 and between 1998/1999. Within these comparisons, 1995 and 1998 are the years which have lower representations for this method.

To address the issue concerning that as a discipline, human resource development is approximately at the same point along a developmental continuum as management as a discipline was in the late 1970's, Table 3 can be reviewed. It was desired to administer a chi square test to this data table to determine if statistically significant differences were present between any of the methodologies for these totals of each journal, however, as was the case earlier, more than twenty percent of the categories had expected cell frequencies less than five. Therefore, only large differences in percentage points will be pointed out.

Following the above rationale, when viewing Table 3, it is evident that large differences exist for the following methodologies: correlation, qualitative methodologies, various statistics, bivariate correlation, and intercorrelation. *HRDQ* 1995-1999 reports a higher rate of use of qualitative methods, while *AMJ* 1975-1979 reports a higher rate of use of correlation, various statistics, bivariate correlation and intercorrelation methods. It should also be noted here that *HRDQ* 1995-1999 reported a much higher number of descriptive type studies than did *AMJ* 1975-1979 (this is not found in the table).

Table 3. Comparison Between *HRDQ* 1995-99 and *AMJ* 1975-79

Method	*HRDQ* 1995-99 (n=57)		*AMJ* 1975-79 (n=164)	
	Frequency	Percent	Frequency	Percent
Regression	12	21.0	41	25.0
Correlation	1	1.7	41	25.0
ANOVA	9	15.7	31	18.9
Cluster analysis	2	3.5	0	0
T-test	13	22.8	16	9.76
Time series tests	1	1.7	0	0
Qualitative methods	12	21.0	8	4.88
Discriminant anal.	0	0	8	4.9
Transformation	0	0	2	1.22
Non-parametric	0	0	6	3.66
Post hoc	2	3.5	2	1.2
Chi square	2	3.5	16	9.76
Graphics	5	8.8	9	5.49
Various stats.	5	8.8	38	23.2
Measures	3	5.3	11	6.71
Other anal.	2	3.5	3	1.8
MDS	0	0	1	0.6
Multiple reg.	4	7.0	17	10.4
Probability	0	0	1	0.6
Meta-anal.	0	0	0	0
ANCOVA	1	1.7	8	4.9
MANOVA	2	3.5	3	1.8
MANCOVA	1	1.7	0	0
CFA	1	1.7	8	4.9
SEM	0	0	10	6.1
EFA	3	5.3	0	0
PCA	1	1.7	14	8.54
Least-squares reg.	2	3.5	1	0.6

	HRDQ 1995-99 (n=57)		*AMJ* 1975-79 (n=164)	
Logit	0	0	0	0
Canonical corr.	0	0	8	4.9
Bivariate corr.	7	12.3	41	25.0
Intercorrelations	2	3.5	24	14.63
WABA	0	0	0	0
Event history	0	0	0	0
Distance anal.	0	0	0	0

Discussion

This research effort set out to provide a description of recent HRD research, determine similarities and differences between types of methodologies reported in the selected journals, and to determine if the discipline of human resource development is at a similar developmental point as the management discipline during the 1975-1979 time period when it reached its twenty year anniversary.

Utilizing descriptors established by Goodwin and Goodwin (1985) - basic, intermediate, advanced and other - and the results from this study, HRD methodologies can be described as intermediate in nature with some use of basic and a slight use of advanced methodologies. This does not say that HRD research is lacking in any area, only that a use of more complex techniques such as factor analysis or path analysis are not being utilized to as large of a degree as such techniques as ANOVA and regression are utilized. The appropriateness of a technique should be evaluated by situation, but at all times, HRD researchers should ensure they consider all methodology options and select the most appropriate, and not the most convenient to allow for the production of better research.

The determination of the existence of several significant differences by journal, demonstrates that within the selected journals, HRD researchers are producing research utilizing more basic techniques than management and industrial organizational psychology researchers. Also, management and industrial organizational psychology researchers, while utilizing similar methods in general terms are using methods which have become discipline specific. For example, management's utilization of event history methodologies and logit regression; while industrial organizational psychology's use of least squares regression and structural equation modeling methodologies are found predominately within these disciplines. These findings demonstrate that although methodologies may often be discipline specific, their utilization by numerous researchers provides some evidence that we live and operate in a multivariate world filled with mediators, moderators and non-normal distributions and that we should consider that fact and look beyond finding a simple description toward finding and explaining relationships and connections between relationships.

While attempting to determine if the discipline of human resource development is at a similar developmental point as the management discipline during the 1975-1979 time period when it reached its twenty year anniversary, only six differences were reported (correlation, qualitative methods, various statistics, descriptive research, bivariate correlation, and intercorrelation). This, along with the other finding of this effort, lead to a discussion that the discipline of human resource development continues to establish its theory base, therefore, the research methodologies which its researchers are applying within its empirical studies leaves the discipline close to the point in its development that the discipline of management was twenty years ago along a developmental continuum. This is by no means stating that human resource development is behind management as a discipline, only that it is in a younger stage than management as a discipline is, and this is evident in the methodologies within journal publications selected for this study.

HRD researchers should focus on moving the discipline forward, i.e. move toward testing present theoretical propositions, taxonomies and models to further develop the discipline, increase the amount of empirical research produced, and the variety of methodologies utilized. HRD researchers should strive to possess a complete understanding of both the statistical methodologies and statistical packages they are implementing in order to increase their contribution to the discipline at hand. Researchers should review previous related content literature and statistical literature when designing a study and apply the most appropriate techniques for analyzing data and cross disciplines to provide the most complete and accurate picture of the situation at hand, and review research produced in other disciplines to assure the proper selection of methodologies to increase the viability of research produced within this discipline.

Once again, studies within the HRD discipline, and within all disciplines discussed here should include multiple techniques, multiple independent and dependent variables, correlational techniques and causal models when appropriate to assure the research effort exist in as complete a state as possible. In other words, to increase contribution, one should search for the best method, apply it properly, and report it clearly.

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Bridging the Gap between Adult Education and Education Psychology: Some Important Findings.

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This is a report upon a micro-analysis of a case of adults entering tertiary study for the first time, and their mental life concerning their own self-performance, constructed across four instances. The principle purpose of the study was to identify some characteristics of the four participants' covert behaviour during their learning in a course on Human Resource Development (HRD).

Keywords: Adult Learner, Educational Psychology, Covert Behavior

Research in adult learning appears to be on the threshold of change. While there has been recent concentration upon improving the effectiveness of the adult learner as being a self-directed learner or a transformative learner, and on the role of the facilitator in these learning processes, understanding of the mental life of adult learners appears to be a new focus of research. What the adult learner might think and feel during an adult learning experience is fundamental to understanding adult educational psychology.

Problem Statement

Adult educational psychology is an emerging field only receiving relatively recent attention from researchers and theorists. According to Smith and Pourchot (1998), traditional educational psychology has had little effect upon adult learning and there is no "formal association" between adult education and educational psychology (p.5). Adult educational psychology is about: "The study of learning activities and developmental processes and instructional practices and settings that promote learning and development as they occur across the adult years" (p.6). Athanasou (1999) is also concerned with the lack of association between adult education and educational psychology: "Adult education and educational psychology are often treated as quite unrelated and separate fields of study." (p 6)

There is a demonstrated need, therefore, to bridge the gap between adult education and educational psychology. The gap has occurred because the major theoretical and research interest in educational psychology has traditionally been centred upon children's learning. Teachers are expected to be aware of the psychology of children's learning. Yet adult educators, who often come from an industrial, commercial or public service background, do not have the same teacher preparation.

This paper is a report upon research by Smith (2000) that focused on the covert behaviour of adult learners in an effort to give better guidance to adult educators when structuring learning experiences for adults.

Theoretical Framework

The theoretical framework is aimed at demonstrating linkages between a number of conceptualisations with the view of forging an association between the practice of adult education and the theory of educational psychology. The resultant entity is the umbrella conceptualisation of adult educational psychology.

Figure 1 indicates that the umbrella concept of adult educational psychology consists of three sub-concepts: adult development, adult learner motivation, and adult learning theory. Each of these in turn is mutually inclusive; for example, self-directedness appears in two conceptualisations. Below this line of sub-concepts, and influencing each, is the concept of adult learner covert behaviour. Adult learner covert behaviour in turn consists of the sub-concepts of adult thought processes, attribution theory and approaches to learning.

Research Proposition

The research proposition in Smith (2000) was therefore to examine each of the above conceptualisations in terms of

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the literature, and to compare published findings with the findings from a micro-analysis of four participants undertaking first time learning in a tertiary HRD classroom.

Research Design

The research aimed to examine the nature of the covert behaviour of a group of adults in a formal learning situation relating to four major areas: the characteristics of adult learners entering a tertiary setting; the characteristics of participants' covert behaviour during a learning session; the conceptions of self-performance that adult learners appear to hold in a tertiary learning situation, and the conceptions of approaches to learning that adult learners appear to hold and then develop in a tertiary learning situation.

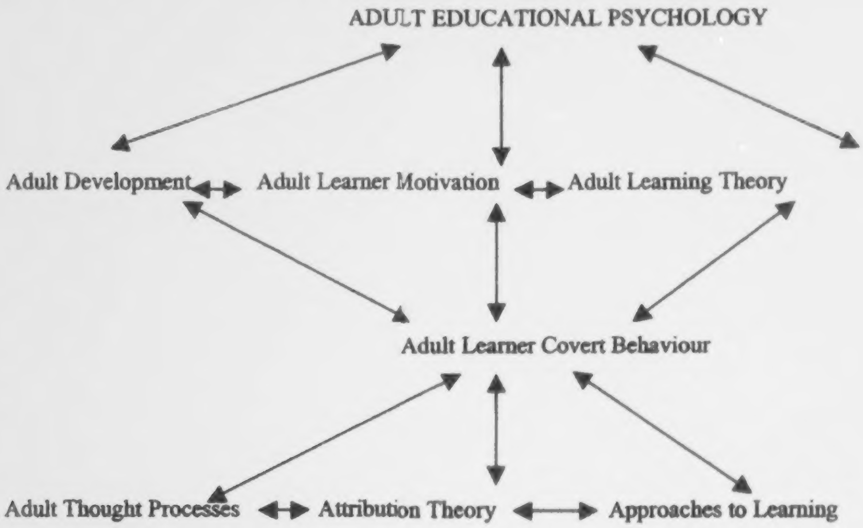

Figure 1. A theoretical framework incorporating key elements and their relationships.

The investigation of the covert behaviour of adults was based upon two substantive assumptions: That the adult learner entered and participated in achievement-related situations with thoughts and feelings about their self-performance; and, that the adult learner's conception of self-performance influenced their achievement-related behaviour.

The participants in the study were four mature-age students, two male and two female, who were enrolled in a tertiary course for the first time in their lives. All were employed HRD practitioners who enrolled in an undergraduate program in order to update their theory and practice in the field of HRD. None of the adults had experienced sequenced, long term formal, or classroom learning since leaving school so this formal learning experience was unique to them.

During the first semester of their course the four participants completed the Attribution Style Questionnaire (ASQ) (Petersen *et al.*, 1982). The Attributional Style Questionnaire (ASQ) is a self-report measure of patterns of explanatory style, that is, the tendency to select certain causal explanations for good and bad events. There are three dimensions relevant to a person's causal attributions and each dimension is associated with a particular aspect of adaptation to an uncontrollable event (Tennen and Herzberger, 1985). Participants also completed the Study Profile Questionnaire (SPQ) (Biggs, 1987). The SPQ is a 42 item, self-report questionnaire designed to focus on students' approaches to learning. It is designed to assess the extent to which a tertiary student at university endorses different approaches to learning and the more important motives and strategies comprising those approaches.

In order to answer the research questions the kinds of data collected were of two kinds: demographic and covert. Demographic data were collected in order to be able to richly describe the participants in terms of their life context. For example, their age, gender, backgrounds in terms of work experience and education were considered helpful in this regard. More significantly, data were collected about the participants' covert behaviour in order to describe their thoughts and emotions prior to, during, and after a learning episode. For example, expectations, attributions, conceptions, perceptions, motives, ideas, beliefs, emotions and lines of reasoning were sought in order to build a picture of covert behaviour during learning.

Five sources were used to retrieve the data significant to the study: questionnaire responses, verbal reports in interview format, written reports, researcher field notes and videotapes. The ASQ and SPQ were administered in order to gain insight into the participants' explanatory style and their strategies for learning. Verbal reports were gained through a series of semi-structured interviews that were both conventional and stimulated. The conventional interviews were conducted using a variety of standard questions, while the stimulated interviews were conducted using videotapes as prompts for the participants. Each participant was asked to keep a self-report journal in which they were to record any thoughts and feelings pertaining to their learning as they occurred. As well, the researcher kept field notes of observations of the participants during each learning session. Finally, videotapes were made of learning sessions as aids to the stimulated recall methodology.

Interviews of the sample were of two types: semi-structured face-to-face interviews in the students' work places and stimulated recall interviews at the university. The interviews were formal interviews in a preset, field setting using a semi-structured question format by an interviewer who was somewhat directive (Fontana and Frey in Denzin and Lincoln, 1994).

Each participant was interviewed in their workplace prior to any research treatment in order to establish each student's background, motivation and expectations for learning at tertiary level. The interviews were semi-structured so that the students felt at ease with the researcher but the researcher did ensure that details collected from each student provided data on their thoughts, emotions and experiences. Apart from these conventional interviewing techniques, interviews were also conducted using stimulated recall. Stimulated recall interviews with the sample group yielded data on their interactive thoughts, that is, those thoughts that actually occurred during the classroom session. These interviews were conducted at the university immediately after, or as close as possible to, the cessation of a three-hour morning classroom session, and participant thoughts and feelings were stimulated through the use of videotapes of each session. Each participant was interviewed after three consecutive morning sessions. Transcripts of all interviews were then prepared for later analysis.

The researcher also prepared a session running sheet during the video recording. This running sheet described the sequence of events throughout the session. Facilitator strategies, student responses, transitions, significant and intriguing questions and comments, intra- and inter-group interactions were recorded against the clock and the videotape counter.

Each participant was asked to keep a journal in which they were encouraged to record random thoughts and feelings about their learning. These recordings were made both during the sessions and during reflective times outside the classroom.

A number of major reliability and validity issues had to be addressed in the gathering of data for this investigation. The case study approach was selected because it appeared to be the best approach for a micro-analysis of the thoughts and feelings of a group of adult learners. Stimulated recall methodology utilising videotape was deemed to be the most effective data collection method largely because of its viability in this research situation and the large numbers of studies that have used it in the past. The quantitative instruments, the ASQ and SPQ, have proved valid and reliable in a myriad of other situations and their unique use in this research was deemed to be appropriate in order to triangulate data from the stimulated recall methodology.

Results and Findings

Results and findings are indicated under each of the conceptualisations indicated in Figure 1.

Adult Development

All four participants had experience in work situations other than HRD and appeared to be motivated by the need to enhance their new careers in HRD. No evidence was found to indicate other motivation, such as family transitions, so the literature (for example, Aslanian & Brickell, 1980) that indicated that career moves were important reasons for adults undertaking learning is confirmed by the four participants in this study.

In terms of the life span models of, for example, Maslow (1968) and Levinson (1978, 1996), some inferences can be made from the data collected. Each of the participants, albeit differentially, demonstrated a maturity of mind and motivation driven by the need to actualise their potential in their workplaces. All were battling, to a more or lesser degree, with a kind of internal conflict that was fed by some self-imposed doubt and some external pressures. Acceptance of these conflicts as an inevitable part of being an adult was an indication that all were functioning as adult learners. As Knowles, Holton and Swanson (1998) have indicated, adult learning is inextricably intertwined with adult development and motivation and readiness to learn is a function of development. These assertions were borne out by these participants.

Adult Learner Motivation

These participants confirmed Burns' (1998) assertion that adult learners are motivated by their needs in certain situations. All four, as already indicated, were motivated to attend to the new experiences of tertiary learning because they sensed the need to develop themselves at work. However, Burns' assertion that motivation is defined as a willingness to exert high levels of effort towards achievable goals was not entirely supported by the reported comments of two of the participants. The amount of effort expended by all participants did vary significantly and appeared to be the result of diverse conceptions of learning and the varying view of how long each participant was willing to maintain that effort.

In this study, Wlodowski's (1999) concept of inclusion seems to be contained in the identified research variable of "public participation". Public participation is concerned with each participant's thoughts and feelings about being part of the learning group. In this study, group work allowed each individual to access their experience, to reflect, to discuss and to allow their experiences to give meaning to the content of the session. However, there were instances where the participants chose not to be included in the group. The reasons for these withdrawals range through initial shyness, off task thoughts, frustration with "grandstanders", a desire for social isolation and frustration with perceived off task group behaviour. Therefore, while Wlodowski paints a warm picture of inclusive activity, these participants have demonstrated that an individual's a sense of inclusion will ebb and flow according to that individual's thoughts and feelings at critical times in the learning process.

Another of Wlodowski's (1999) four motivational conditions is the relationship between a learner's attitude and their behaviour. Learners apply past solutions to present problems and this allows them to cope and to be consistent in their behaviour. In this study, the participants were all more or less reticent about their new learning experience. Because they were reticent their application of learned past reactions to similar situations enabled them to cope successfully.

Attitudes are also shaped by needs because they make certain goals more or less desirable (Wlodowski, 1999). In this instance, all of the participants had the need to reaffirm that their current work practices were supported by the theoretical constructs learned in the classroom. Therefore, any classroom theory that did not assist them to immediately confirm or resolve practical work situations caused them consternation. There seemed to be a direct link between their attitude and their perception of how their needs were being met. For these participants, personal relevance appeared paramount. They perceived relevance when the classroom learning was contextualised in their personal and workplace meanings, and when the relevance reflected their construction of reality.

Strongly related to the desire for personal relevance is Wlodowski's third condition of motivation, the desire for meaningfulness. For these participants, the transcripts are full of allusions to learning activities that did create meaning and involvement, but when they did not the participants gave full voice to their criticism.

Adult Learning Theory

Merriam and Caffarella's (1999) framework for examining learning in adulthood – namely, the individual learner, the learning context and the learning process – proved to be a most useful framework for this study. Demographic and background data were gathered to reveal idiosyncratic information on each participant. The particular learning context was described in order to understand better the participants within the framework of the tertiary classroom. More importantly for this study, reported thoughts and feelings of the participants during the learning process were gathered, coded and analysed.

Some inferences can be made from the data that support the efficacy of Knowles, Holton and Swanson's (1998) six core andragogical principles. Two of these, *readiness to learn* and *motivation to learn*, have already been covered. The remaining four are discussed below.

Need to Know. According to Knowles, Holton and Swanson (1998), adults *need to know* how the learning will be conducted, what learning will occur and why it is important. In this study, the participants reported on a number of occasions their liking for the opportunity to learn in those small groups where there was a rich interaction of ideas. As well, at the beginning of each learning session the facilitator used advanced organisers to indicate the day's agenda in order to satisfy the participants' need to know what content was to be learned and how it would be learned. What is interesting from the data is the lack of need for the participants to seek answers from the facilitator as to why the learning was important. The answer instead came from their own perception of what was important and the yardstick of this was whether the content was relevant and meaningful.

Self-directedness. Knowles and others have written at length about the adult learner's desire for *self-directedness.* All of the participants at various stages implied their learning was self-directed with regard to planning what they were to learn, how they went about this and what was required to have that learning evaluated by the facilitator. In the areas of planning and execution of learning, there was no evidence that the participants wanted or expected to be taught all the time. However, there were numerous instances when participants required structure from the facilitator and some guidance on how to proceed. If the process of self-directedness seeks absoluteness then it did not occur for these participants. On the other hand, the reported comments of the participants did confirm that they believed directedness to be a personal attribute.

Prior Experiences. The participants appeared to demonstrate Mezirow's (1997) tenet that adults need to understand their *prior experiences* and to make sense of what is happening to them. Such a requirement is difficult to do alone. That is why the participants reported why the group work concept was so powerful for them and why it was so idiosyncratic. The group work enabled them to share experiences, receive feedback, to listen to the experiences of others and to help them understand concepts.

Orientation to Learning. The andragogy in practice model (Knowles, Holton & Swanson, 1998) indicates that adults learn best when new information is presented in a real-life context, especially when they are able to utilise their current, as opposed to their previous, experiences. This was well demonstrated by the four participants. They reported on many occasions their liking for the learning strategies initiated by the facilitators that related to real life. Each session was started with some kind of concrete experience such as the examination of a relevant case study. Small groups were utilised to allow the learners to observe and reflect upon that experience. This meant sharing of experiences with knowledgeable peers in an environment of inclusion (Wlodowski, 1999). Finally, lessons learned were translated into practice in the workplace through project work.

Adult Thought Processes

There were a variety of belief systems underlying learning amongst the group. This study, as did Kasworm's (1999), indicated there was more to the premise that adult learners just engage in learning through problem orientation or pragmatic applications. There is a more complex interrelationship mediated by the situation of the learner and their knowledge based upon their life role as an adult, past schooling and work experiences, knowledge structures and the classroom learning process. Certainly each of the participants brought to the learning situation an idiosyncratic biography of knowledge, experiences, conceptions and expectations.

Attribution Theory

Attribution theory (for example, Weiner, 1980) examines to what main causes people attribute their successes and failures. The researcher required the participants in this study to complete the Attributional Style Questionnaire (ASQ) in order to help discover causal explanations for the participants' behaviour. Such causes were grouped along a continuum of pessimism to optimism. In the main, the participants' ASQ scores indicated a moderate to high degree of optimism. That is, their explanatory style for explaining good events was internal, permanent and able to enhance every experience, while for bad events they attributed causes externally, temporarily and specifically. As a result, while the participants came to tertiary study with some trepidation as to their chances of success, they were optimistic about their outcomes.

Approaches to Learning

As this study was primarily about adult learning in a tertiary situation data were sought concerning the thoughts and feelings the participants held about their learning. Quantitative data were generated by the administration of the Study Process Questionnaire (SPQ) that sought information on the students' approach to learning, and an examination of qualitative responses was sought to confirm or deny the SPQ finding. The four participants interestingly covered the range of approaches to learning in the SPQ from Deep Predominant, through Achievement Predominant to Surface Predominant.

While approach to learning can be ascertained by the administration of the SPQ it was the qualitative data that enriched the understanding of these students in a learning situation. The making of meaning by seeking the relevance of the classroom content to the adult life and work world appears to be the fundamental driving force of these students. Indeed, it is the initial unsatisfactory fit between the classroom content and the individual experience that activates the engagement of the individual. After a satisfactory cognitive and emotional interaction with the content a shift to a fresh meaning is achieved.

Additionally, the idiosyncratic life events and transitions in an adult's life also activate learning. In this research, because the program of study was vocationally and experientially based, it was no surprise that the students were prompted by a desire to meet current and future developmental needs through interaction with the program and its promise of a credential. Yet the interaction is more than pragmatically motivated but is the result of a complex intersection of the adult's situation and the way they construct meaning.

What is interesting in this study is not only the confirmation of the literature but also the degree of intensity that each of the participants reported about aspects of their learning. These adults reported strong beliefs and reasons underlying their learning and it is useful to ponder possible causes of the intensity. Perhaps the vocational orientation established expectations that classroom content would be relevant to their workplace so they approached the learning with the expectancy that the course would deliver. When it did deliver they expressed intense satisfaction; when it did not they were not reticent to voice loud disapproval. Perhaps, too, both the implicitly and explicitly voiced expectancies of the participants that universities are too academic and not related to the real world, established a kind of cognitive and affective barrier to learning that would only be diminished when their negative expectations were reversed.

External Pressures

Pressures outside the classroom were common for all participants in the study. While the effects of external distractions varied, some effects were extreme. Lack of time and money are the most often cited reasons for non-participation in adult learning (Merriam & Caffarella, 1999). Once engaged in learning it appears that lack of time to devote to that learning is a prominent negative force. However, it was not just time that exerted external pressure, but the emotions involved with life outside the classroom that also exerted significant pressure.

Conclusions and Recommendations

The four participants in Smith's (2000) study have reported a wide variety of variables such as ideas, beliefs, emotions and lines of reasoning in their covert behaviour while undertaking learning in a tertiary situation. Findings generally support the adult learning literature. No other study has reported the strength and the intensity of adult thoughts and feelings about their self-performance as this one did. Therefore, where the findings in the literature may have been tentative and even speculatory, this study adds some confirmation to much of it.

Relevance and meaningfulness of classroom content to learners' lives and work is paramount. Learning needs to be connected with how learners see themselves, what they care about, how they perceive and come to know. With these participants, when this occurs achievement motivation appears to soar; when it does not frustration and cynicism result. Therefore, any learning experience designed for adults, be it organisational learning or campus-based learning, requires content relevance and meaning.

Adult's belief in themselves as previous achievers creates a general optimistic view of life that in turn creates an attitude that effort will enable success. If it is *effort, ability, task difficulty* and *luck* (Weiner, 1980) that are the main causes to which learners attribute their success and failures, then these participants favoured *effort* and *ability* as the major causes of both success and failure. Therefore, facilitators of adult learning need to foster adults' belief in their experiences and ability as being fundamental to their success as learners.

All participants sought inclusion in the learning process. This meant interacting with the facilitator and the other students in their group. Such inclusion ebbed and flowed depending upon individual perceptions of the dynamics of group interplay at various times. When perceptions were that the group was off-task, or that individuals were exercising their egos, then participation ebbed. However, when the group was contributing to and supporting individual learning then the sense of inclusion was most powerful. Group problem solving is a powerful tactic that adult learning facilitators can use when designing meaningful learning episodes.

External pressures appear to be the single most limiting factor upon the adult capacity to learn in a formal setting. Lack of time is often cited as the major limiting factor. In this study, it was found that it was not just a lack of time but the emotions generated by the causes of that lack of time. Partner sickness, own ill health and competing pressures illustrated how time away from learning might emanate, but it was the emotion generated by such events that really took their toll. It therefore behoves learning facilitators to take into account the possibility that external pressures will affect the adult learner.

Contributions to New Knowledge in HRD

If one accepts, as Peterson and Cooper (1999) have, that there is a false dichotomy between HRD and adult education and that these fields share a common objective –learning for a productive citizenry – then the findings reported here have some implications for HRD practitioners.

For the adult learner relevance and meaningfulness of any new learning is vital if significant learning is to occur. It therefore behoves program facilitators to ground content in the workplace and to ensure that evaluation of learning is workplace-based.

Facilitators need to be aware that adults will have a variety of approaches to learning, so content, delivery and evaluation need to reflect this variety. For instance, there needs to be a wide list of resources for the deep-oriented learner to engage their desire for understanding, and for the surface-oriented learner there needs to be structure to ensure they are comfortable within known guidelines.

Adults also bring a variety of belief systems of engagement in learning. Facilitators need to recognise the importance of the social and cultural context of learning and the place authentic experience plays in learning. The learner's workplace is a logical context for this to occur.

The adult need for inclusion has an important implication for adult facilitators. Because the need for inclusion is an important motivator learning experiences need to be constructed to encourage this. However, this paper has indicated that individual commitment to group work is not always optimal and the facilitator needs to be able to change the state of the experience when less than optimal engagement is detected.

Adults approach any new learning experience with some amount of fear or trepidation. However, the study upon which this paper is based, indicated that such apprehension gives way to confidence as the individual achieves competence and improved self-concept. Therefore, orientation to learning and a gradual increasing of standards over the course of facilitation will aid this process.

Adults face a myriad of external pressures that often come associated with some emotional baggage. The alert facilitator will take into account such emotions and enable the learner to work through these even if that means allowing a wider range of flexibility.

Perhaps the largest contribution to HRD knowledge is that each adult learner has a unique mental life that operates totally outside the observation of the facilitator. In normal classroom circumstances this mental life will most likely never be revealed. At times, facilitators may simply have to acknowledge that there are a range of feelings and thoughts, and to have these, regardless of what they are, is acceptable to both the facilitator and to other students. What is unacceptable is that a facilitator will arrange a learning experience without an understanding of, and due regard for, the mental lives of adult learners. When this understanding occurs the desired relationship between educational psychology and adult education will be closer to fruition.

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Mary Parker Follett: Philosopher of Human Resource Development

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Currently a number of philosophers provide constructs for HRD. One writer that is worthy of study is Mary Parker Follett. Despite a dormancy of many decades, her thoughts are emerging as contemporary and innovative. This paper concludes that Follett is a Philosopher of HRD, not only because her ideas support concepts similar to other HRD philosophers but also because she introduces adult learning as paramount for the development of the individual and organization.

Keywords: Mary Parker Follett, Management History, HRD Foundations

Introduction

As Human Resource Development (HRD) continues to grow as a field of study and practice, it is vital that we follow a "philosophical framework for research and practice in HRD" (Swanson, Lynham, Ruona, & Torraco, 2000, p. 1125). Such a framework includes ontology (how we see the world), epistemology (how we know what we know), and axiology (how we should act). Since Human Resource Development emerged as a distinct field of study and practice in the 1960's, a variety of definitions of the field have been offered (Weinberger, 1998). Although these definitions all vary, they generally have in common the concepts of the development of people (human development), learning, and organizations. This understanding of HRD as a field is found in Nadler's original approach to HRD (1970), is echoed by a protégé of Nadler's, Neal Chalofsky (Personal Communication, 1997), and is most recently expressed in Ruona's (2000) analysis of the core beliefs about HRD. Thus, these three areas of people, learning, and organization can be considered the pillars of Human Resource Development.

We argue that long forgotten works of Mary Parker Follett capture the concepts of people, organizations, and learning, making Follett a philosopher of HRD even before the field was articulated. Each of these foundational disciplines has theorists who provide insights into the philosophical framework that under girds HRD. Brought together, these philosophers provide a framework for understanding how professionals in the field of HRD see the world, know the world, and practice in the world. Although there are a vast number of authors who are considered seminal for organization, learning, and human development theory, we have chosen five authors who address these pillars. These authors were selected, in part, because each is widely acclaimed as a seminal theorist in his respective field. This is certainly not meant to be an exhaustive list of those seminal thinkers who have influenced the discipline of HRD. Instead, they serve as benchmarks to highlight how Mary Parker Follett captured ideas associated with seminal works in each of the three pillars of HRD. For the purpose of this exploration, Chester Barnard and Max Weber provide seminal insights into organizations; George Herbert Mead and Erik Erikson provide seminal insights into the development of people; and Eduard Lindeman provides seminal insights into adult learning.

The purpose of this paper is to demonstrate that Mary Parker Follett is a Philosopher of HRD who offers thoughts on how our field views the world, sees the world, and practices in the world. This will be demonstrated by making comparisons of her insights to those made by seminal theorists in the three pillars of HRD. As a philosopher of HRD, Follett provides another framework for research and practice in HRD. As such, we believe it is important to add her works to our repertoire of guiding philosophical frameworks for the field of HRD.

Background

In the management literature, a long forgotten voice is emerging - that of Mary Parker Follett - who is being hailed as the "Prophet of Management." She has been dormant for a number of decades and only recently is she receiving

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much attention. Her management thoughts center on integration and participation (Wolf, 1988); she espouses thoughts on conflict, leaders and teams, coordination, authority, and control (Selber & Austin, 1997), as well as communication (Dixon, 1996). Thus, Follett's work covers the topics associated with the foundations of HRD.

We examined three of Follett's five publications as well as twelve of her presentations for insights about people, organizations, and adult learning and compared those insights to those made by select seminal philosophers associated with each of the foundational disciplines. This paper presents our findings that support the claim that Mary Parker Follett is a philosopher of HRD because she offers insights associated with people, organizations, and learning.

The Framework of Mary Parker Follet's Works

Follett's most known works are her business lectures that are primarily captured in Fox and Urwick's (1982) Dynamic Administration and Graham's (1996) Mary Parker Follett: Prophet of Management. Dispersed throughout Follett's works are her thoughts on the individual, organization, and adult learning. The following subsections present these thoughts compared to several core theorists from the foundational areas of HRD.

Individual

In this section we will explore the characteristics of the individual in Follett's work in comparison to the characteristics of the individual described by two well-known theorists of human development. Follett's individual can be seen in terms of his relationship to society, of his internal conflicts, and in his creative experiences. In these characteristics, she is similar to both Mead's and Erikson's individual.

Like Follett, Mead (1967/1934) writes that individuals develop objectively through social relations and interactions where the "generalized social attitudes ... make an organized self possible" (p. 260). Follett's individual exists not unto himself but in union with society. The individual develops as a result of interactions with society with experience adding up exponentially. Eisenberg (1996) categorizes Follett as a pluralist whose ideas shape the development of individuals in democratic organizations. Central to this development is the concept that the individual matures and develops in relationship to the group. This concept is similar to Mead's (1967/1934) self who "finds its expression in the self-assertion, or in the devotion of itself to the cause of the community. The self appears as a new type of individual in the social whole" (p. 192). Mead's (1967/1934) individual adjusts to the environment resulting in a different person. This change thus impacts the community.

Follett's views on integration of the self and multiple facets of community are important in the development of the individual. For her, the individual exists on multiple planes and must unite those planes (Follett, 1924). This occurs "by the subtle process of interpenetration of a collective sovereignty (that) is evolved from a distributed sovereignty" (Follett, 1998/1918, p. 271). In other words, the individual must find a way to recognize and celebrate the different roles and identities he takes on in multiple settings and then discover how those multiple roles and identities are really integrated into a single identity. Erikson (1974) has similar thoughts about "a Protean man of many appearances" who is nevertheless "centered in a true identity" (p. 51).

In addition to development in terms of the individual and the community, Follett proposes individual development in terms of internal conflict. Follett (1996g) writes that every individual has many "warring tendencies inside himself where the effectiveness of an individual ... depends largely on these various tendencies ... being made into one harmonious whole" (p. 219). The "process is one of self-adjustment" (Follett, 1996g, p. 219). These warring tendencies resolve through self-adjustment as a result of constructive conflict. Follett (1996a) writes "we can often measure our progress by watching the nature of our conflicts ... we become spiritually more and more developed as our conflicts rise to higher levels" (p. 72). For example, when individuals are in negotiation with others, personal development and empathy develop through Follett's process of circular response (Kolb, Jensen, Shannon, 1996). Armstrong (1998) highlights her own developmental experience where the interactive exchange between researcher and participant, or circular response process, led to significant transformations during her study of Follett's principles in the workplace.

Erikson (1974) also believes in the progression through internal conflicts in order to develop. Erikson's (1974) stages of development present warring tendencies that an individual has at various times through life. From Erikson's (1974) perspective, the individual must develop a "positive identity (that) must ever fortify itself by drawing the line against undesirables, ... those negative potentials which each man must confine and repress, deny and expel, brand and torture, within himself" (p. 71).

Finally, Follett also sees development as a creative experience with the individual and whole accomplished through "relating (which) involves an increment that can be measured only by compound interest. In compound interest part of the activity of the growing is the adding of the growing" (Follett, 1924, p. 64). "Thus 'behavior' emerges, always from the activity plus" (Follett, 1924, p. 66).

In summary, Follett views the individual resulting from societal interactions as well as development through circular behavior and creative experience. Follett also views individual development through reevaluation and integration of internal conflicts. She sees development as a synthesis of self, society, and creative action. Her perspectives of the development of the individual draw from well-established theorists associated with the field of human development.

Organization

In this section, we will explore Follett's concepts of organizational life as they relate to concepts proposed by two seminal theorists in organizational theory, Weber and Barnard. The major themes in Follett's organization deal with leadership, participatory management, and communication. Perhaps most interesting is that while Follett's theories of leadership can be compared in many ways to Weber's and Barnard's theories of leadership, their theories about the nature of participation and communication are more easily contrasted. In our opinion, this is likely because Follett was ahead of her time with regard to thinking about the nature of organizing; although we selected two classic theorists of organizing for this exploration, future studies might include more contemporary theorists of organization who are more likely to value participatory concepts.

Follett's leader is similar to Barnard's (1968/1938) leader who "is the indispensable fulminator of (cooperation)" (p. 259). Follett believes that the most pressing need of business is "not merely men who can unite without friction, but who can turn their union to account. The successful business man to-day is the man of trained cooperative intelligence" (Follett, 1998/1918, p. 113). She writes that the leaders have three major tasks dealing with workers, consumers, and investors with the leader "integrating the interests of these three classes" (Follett, 1982a, p. 64). Graham (1998) states that this integration has more productivity with a fairer workplace.

Follett (1982d) promotes the idea of a partnership between the leader and the follower resulting in "a reciprocal leadership" (p. 303) in which the "leader guides the group and is at the same time himself guided by the group" (Follett, 1998/1918, p. 229). Additionally, Follett's leader has the key understanding to do the job (Follett, 1982b). This knowledgeable leader is similar to both Weber and Barnard. Weber's leader is also one who has "acquired expert knowledge and who serve(s) for remuneration" (Gerth & Mills, 1946, p. 245). Likewise Barnard's (1968/1938) leader has "the aspect of individual superiority - in physique, in skill, in technology, in perception, in knowledge, in memory, in imagination" (p. 260).

Follett's leader is one whose authority is decentralized throughout the organization (Follett, 1987, 1998/1918). "Authority follows the function … belongs to the job and stays with job" (Follett, 1996d, p. 153). This is similar to Barnard (1968/1938) who recognizes that "knowledge and understanding regardless of position command respect" (p. 173); however, he does emphasize "authority to communications from superior positions … authority of position" (p. 173). Because authority is decentralized, the giving of orders in Follett's organization is operationalized as a standard of practice or rule (Follett, 1996d).

Her leader is inspirational and visionary, leading change (Follett, 1998/1918) and exhibiting conduct that merits trust (Vidaver-Cohen, 1998). Her leader does not use persuasion that may sometimes manifest in "the form of power-over" (Follett, 1996c, p. 104). Follett's leader is similar to Barnard's (1968/1938) visionary leader who binds "the wills of men to the accomplishment of purposes beyond their immediate ends, beyond their times" (p. 283). However, Barnard's leader relies heavily on persuasion to change subjective attitudes by: "a) the creation of coercive conditions; b) the rationalization of opportunity; c) the inculcation of motives" (Barnard, 1968/1938, p. 149).

Although similarities can be seen between the leaders described by Follett, Weber, and Barnard, a distinct contrast can be observed with respect to the nature of organizing. One reason for this is Follett's philosophy of community is the driving factor behind her conception of the participatory organization. Follett (1919) writes, "the study of community as process does away with hierarchy" (p. 582). She advocates coactive power of management and unions (Briar-Lawson, 1998), arguing that society must merge labor and capital to form "an integration of interests and motives, of standards and ideals of justice" (Follett, 1998/1918, p. 117). Follett applies these thoughts to the organization referring to her organization as a "functional whole or integrative unity" (Follett, 1982a, p. 42). Because of this philosophy, Cooper (1980) credits Follett with understanding the relationship of theory, institution, and person as well as facts, politics, and psychology. In other words, Follett understands that there are many similar and contradictory influences on an organization. In order for an organization to become more functional, organizations must constantly address and unite these influences thus becoming an integrative unity.

Follett's (1996b) organization is well coordinated with a "horizontal rather than a vertical authority" (p. 186). This democratic organization is different from Weber's (Gerth and Mills, 1946) and Barnard's (1968/1938) organizations. In Weber's bureaucracy, there is "a firmly ordered system of super- and subordination in which there is a supervision of the lower offices by the higher ones" (Gerth & Mill, 1946, p. 197. In a similar fashion, Barnard's (1968/1938) organization also has a hierarchy with its "system of communication ... known as the 'lines of authority' (p. 175). This "line of communication should not be interrupted during the time when the organization is to function" (Barnard, 1968/1938, p. 179). This line of authority maintains vertical hierarchy at all times.

Teamwork is a manifestation of Follett's participatory management that has a collective responsibility supported by the "development of group responsibility" (Follett, 1996b, p. 195). Follett's influence can be seen as a radical democratic thought where interdependency is accomplished through group interactions (Ventriss, 1998). Individuals are not only "responsible for their own work, but as sharing in a responsibility for the whole enterprise" (Follett, 1996b, p. 196). In this organization, "the necessity of team-work between departments is recognized by everyone" (Follett, 1982a, p. 61). This teamwork may actually promote coordinated control in the organization. For example, Barker (1993) summarizes the development of concertive control that constrains members even more than the previous system despite a participatory influence and decentralized system. In this type of control strategy, the workers establish their own control based on consensus about appropriate behavior. Teams operating with concertive control actually demonstrate more control over members than authoritarian, technological, or hierarchical control.

The participatory management of Follett's organization also exhibits power that is a power-with instead of a power-over. Integration reduces power-over. Power-over is also reduced "through recognizing all should submit to ... the law of situation, and ... through making our business more and more of a functional unity" (Follett, 1924, p. 109). The law of situation provides orders that are generated from a specific situation instead of a hierarchical position. "In a functional unity each (man) has his function ... the authority and the responsibility which go with that function" (Follett, 1996c, p. 109). With theoretical foundation in Follett's power-with, Brunner's (2000) study of women superintendents supports this power-with. These women are comfortable describing, "power as a collaborative, inclusive, consensus-building model" (p. 88) ... shared with others or collective" (p. 89). This approach to power and collaboration can also be seen in Follett's conceptions of coordination and control.

Coordination in Follett's (1996g) organization is maintained by control but this control is "fact-control rather than man-control" (p. 213). Control exists through "reciprocal relating of all the factors in a situation" (Follett, 1996g, p. 214) and "co-ordination by direct contact of the responsible people concerned" (Follett, 1996g, p. 218). In contrast, the coordination in Barnard's (1968/1938) organization is through communication and man-control with "the selection in part, but especially the promotion, demotion, and dismissal of men, depend upon the exercise of supervision or what is often called 'control' (p. 173).

A participatory organization also needs communication to be integrated. Although both Weber and Barnard share Follett's perception that communication is the lifeblood of an organization, Follett's notions of communication are somewhat more democratic than either Weber's or Barnard's. Pietri (1974) recognizes Follett as one of the pioneers of organizational communication. Communication is important to maintain integration as well as interpenetration. In Barnard's organization, communication is the method that makes dynamic the "possibility of accomplishing a common purpose and the existence of persons ... contributing to such a common purpose" (Barnard, 1968/1938, p. 89). Weber supports "communication ... as (the) pacemakers of bureaucratization" (Gerth & Mills, 1946, p. 213). This communication supports the bureaucratic centralization at the same time "keeping their knowledge and intentions secret" (Gerth & Mills, 1946, p. 233).

In addition to the structural importance of communication, Follett goes one step further addressing the relational nature of communication. Follett recognizes that the language used may be a serious barrier to integration. "Probably more industrial trouble has been caused by the manner in which orders have been given than in any other way" (Follett, 1996f, p. 125). Follett (1924) states, "in the most delicate situations we quite consciously choose that which will not arouse antagonism" (p. 83). Oswick and Keenoy (1997) propose that discourse and action are not distinct domains and that management is a discursive activity that drives management processes and maintains managerial roles.

Communication is also important for conflict resolution. Follett's view of circular response is seen in situations where managers "get the workers' point of view and for workers to get the managers' point of view" (Follett, 1982c, p. 135). Because of Follett's views on conflict and integrative unity, she is known as a leader in integrative negotiations (Davis, 1991; Gawthrop, 1997; Johnson & Johnson, 1996; Kolb et al, 1996; Mintzberg et al. 1996). In successful conflict resolution, the interests and positions of parties are known (Deutsch, 1993). When interests are communicated, it is possible to find an integrated solution. For example, public conflict resolution between regulators and public citizens can be accomplished best through transformative practice with an engaged community, responsive government, and a capacity for problem-solving and conflict resolution (Dukes, 1993).

In summary there are some similarities between Follett and other philosophers in the field of organization and management. However, Follett introduces new thoughts regarding participatory organizations, communication, and leadership. These ideas are informed by her concepts of the reciprocal developmental relationship between the individual and the community of which he is a part.

Adult Learning

Mary Parker Follett views adult learning in terms of life; her concepts about learning offer an axiological frame for both individual development and organization. She has a pragmatic view providing suggestions on how to conduct education and for whom education is essential. Follett believes that the purpose of education for people is to "create life for themselves … in making choices. The "aim of all proper training is … the power to make a new choice at every moment" (Follett, 1998/1918, p. 54). Godfrey (1999) references Follett in his suggestion that service-learning pedagogies are important to developing informed citizens. With this concept in mind, Follett (1998/1918) believes training is a continuous, life-long process. These thoughts are similar to Lindeman (1989/1926) who also believes that "education is life" (p.129).

Follett (1998/1918) also supports self-direction at all levels believing that "we must train up our young people in the ways of self-direction" (p. 371). Additionally, she supports self-direction in the work place summarizing a successful businessman who wants his employees to "see that their life of steady learning is just beginning and their whole career depends on their getting this attitude" (Follett, 1998/1918, p. 370).

Follett's School Centres that may be equivalent to organization training departments today need to "help (people) acquire the attitude of learning, to make them see that education is for life" (Follett, 1998/1918, p. 370). These concepts are similar to Weber's organization that rationalizes the necessity of education and training to produce "a system of special examinations and the trained expertness" (Gerth & Mills, 1946, p. 240).

For Follett the teacher is a leader giving opportunities (1924). Additionally, the teacher as leader facilitates the growth of staff by empowering them to make decisions (Follett, 1996e). In the process of adjustment, the teacher instructs the "student first to become experience-conscious, secondly, to see the meaning of his experiences, and thirdly, to organize his experience" (Follett, 1982d, p. 311).

Follett (1982d) suggests methods of group activity for teaching. Through group process interdependence is achieved (Follett, 1982d). In order to teach interdependence to support group process, "every cooperative method conceivable ... must be used on our schools for this end" (Follett, 1998/1918, p. 363). These methods consist of "subjects which require a working together… group recitations, group investigations, and a gradual plan of self-government" (Follett, 1998/1918, p. 363). Like Lindeman, Follett focuses on the teaching method. Lindeman (1989/1926) suggests that adult educators "devote their major concern to method and not to content" (p. 114). He also writes, "the best teaching method is one which emerges from situation-experience" (Lindeman, 1989/1926, p. 115).

For Follett, training supports integration and coordination. "There should be classes in discussion which should aim to teach the 'art' of cooperative thinking" (Follett, 1924, p. 85). Leaders need "to be trained in the giving of orders - taught how to anticipate reactions, how to arouse the right reactions" (Follett, 1996f, p. 135). Additionally, "training in the technique of the job is a way of giving orders without the worker thinking they are following commands" (Follett, 1996f, p. 131). Follett also believes that there should also be on the job training especially in leadership. Leaders should be trained and allowed to practice (Follett, 1996e).

In summary Follett's beliefs about the purpose of education are similar to those espoused by Lindeman. Follett also introduces thoughts on the role of the teacher and appropriate methods for teaching that are echoed in the theories of Lindeman from the discipline of adult learning and Weber from the discipline of organization science. Her concepts associated with learning offer a lens to the axiology inherent in her philosophy of HRD.

Contributions to Human Resource Development

Follett's writings provide concepts that offer the HRD practitioner a frame of reference regarding the role of adult learning in developing the individual, group, and organization. Many of Follett's views are in alignment with theories presented by seminal authors more closely associated with distinct subdisciplines of HRD; however, she brings a new dimension to these theories by integrating the concepts of people, organizations, and learning.

The HRD practitioner operating from Follett's perspective utilizes adult learning to facilitate the development of the individual and the organization through group work so that an integrated unity is accomplished. The HRD practitioner working with an organization also keeps at the forefront the importance of developing leaders who institute horizontal authority, functional leadership, teamwork, power-with, and law of situation. For example, the relatively recent leadership development practice of 360-degree feedback has roots in Follett's views about development in terms of the individual and the community (Klagge, 1995).

From an ontological perspective, Follett provides concepts about the individual, organization, and adult learning. Follett sees the individual, as do Mead and Erikson. Follett's individual is a result of his interactions with society that allows him to formulate an individuality. This individual is also an integration of a multitude of reactions. The group is the link between the individual and the organization at large. The organization is a representation of a unified whole. For Follett adult learning is an integral part of growth with experience the living classroom. From this perspective, the HRD practitioner sees the organization with integrative management recognizing the importance of the individual as well as the group. Within this integrated organization, learning is a core element. This concept is currently reflected in HRD writings centered on organizational learning.

From an epistemological perspective, Follett's writings address the individual, group, organization as well as adult learning. Follett's parallel processes of individual development recognize influences internal and external to the individual with interpenetration that allows the integration of an individual. The interpenetration of individual ideas also results in collective thinking that is the true process of decision-making. Follett believes that the organization is an integrated unity with operating principles of participation, empowerment, functional reciprocal leadership, teamwork, reciprocal communication, and horizontal authority. From this perspective, the HRD practitioner understands the organization recognizing how it should optimally function. Follett's writings provide the foundation for this perspective with support of adult learning in achieving optimal leadership, individual development, and organizational development. Follett's writings also capture the interdisciplinary nature of HRD uniting thoughts around adult learning, management, sociology, and psychology.

Follett's ideas also provide an axiology, how we should act in research and practice, for HRD. For HRD, this axiology is grounded in Follett's thoughts on adult learning. Follett thinks of adult learning as the instrument by which the individual, group, and organization develops. Adult learning allows self-direction and optimal decision making to occur. She even provides pragmatic suggestions on how to teach using the group process to develop a collective mind and integrating whole. From this perspective, the HRD practitioner utilizes adult learning to facilitate the development of the individual and the organization. With thoughts on integrated unity and adult learning, the HRD practitioner encourages development of individuals to achieve participation, empowerment, functional reciprocal leadership, teamwork, reciprocal communication, and horizontal authority.

Conclusions

Mary Parker Follett is indeed a Philosopher of HRD. When compared to HRD sub-discipline theorists such as Weber, Barnard, Mead, Erikson, and Lindeman, she is an innovative and integrative Philosopher of HRD who captures the essence of adult learning in the individual and organization. Follett's writings address the core beliefs of HRD through her thoughts on people, organization, and adult learning. Consequently, her writings provide a framework for how a HRD practitioner sees the world, thinks about the world, and practices in the world.

Although her works pre-date the generally recognized emergence of the field of HRD, Follett nevertheless adds to the body of knowledge of our field. She offers a perspective of organizational life that incorporates all the foundations of HRD - people, learning, and organizations. Much like HRD practitioners today, she uses adult learning as an integrative mechanism to achieve optimal functioning in and by organizations. Such an approach can be seen in her beliefs about leadership development, individual development creating contributing members of society, and career development through continuous learning. Follett's works provide a seminal, foundational view of the essence of HRD. For that reason alone, students of HRD can find value in her works. More importantly, she provides a framework for positioning HRD as a strategic partner to management that facilitates the learning necessary for the survival of the organization.

This paper provided a brief exploration of how Mary Parker Follett's works might be associated with the three foundational pillars of HRD, thus making her a philosopher of note in our field. Clearly, she was ahead of her time in articulating the linkages among people, learning, and organization that were being expressed in the late nineteenth and early to mid-twentieth centuries. Further explorations into Mary Parker Follett's works might trace how her thinking is associated with more contemporary expressions of people, learning, and organizations made by individuals such as Bronfenbrenner (people), Mezirow or Knowles (learning), and Weick or Schein (organizations).

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The Human Resource Development Network as a Means for Adult Learning

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The Human Resource Development Network (HRDN) at Northern Illinois University (NIU), in DeKalb, Illinois, is an example of non-traditional, informal learning. This form of adult learning occurs outside the formal, traditionally conceived boundaries of institutions. Participants created this network to fill in the gaps in their own learning.

Keywords: Informal Learning, Adult Learning, Career Development

The Human Resource Development Network (HRDN) at Northern Illinois University (NIU), in DeKalb, Illinois, is an example of non-traditional, informal learning. This form of adult learning occurs outside the formal, traditionally conceived boundaries of institutions. Participants created this network to fill in the gaps in their own learning.

This study of HRDN at NIU has determined that HRD professionals have successfully conceived and directed their own professional development. Research data came from interviews based on an open-ended questionnaire of thirty-three participants, participant observation, and documentary analysis.

From this inductive study, the CHI model of learning emerged, showing interrelationships among the categories of career awareness, human interaction, and individual development.

Problem Statement

The problem central to this study is the extent to which established networks serve as focal points for individual, lifelong, and professional learning. As learning specialists, HRD professionals are charged with the responsibility for the training and development of individuals and organizations. The demands of this profession require these individuals to be consummate lifelong learners, to insure that the organizations that employ them maintain a position on the cutting edge to keep up with changes in today's fast-moving economy. A central focus of this research was the particular means that HRD professionals utilized to maintain and advance their own personal and professional development.

One way in which HRD professionals remain at the forefront of new knowledge is through networking. HRD professionals connected with Northern Illinois University formed such a learning network to meet their own learning needs, rather than relying solely on providers of continuing professional education and/or institutions of higher education. This study addressed elements of adult learning in such networks and conceived a holistic picture of an HRD network as an environment for adult learning.

Theoretical Framework

Nadler originated the term human resource development in 1969 to describe, "organized learning experiences in a definite time period to increase the possibility of improving job performance or growth" (Nadler, 1983, p. 13). As learning specialists, HRD professionals are charged with the development of individuals and organizations. Gilly and Eggland (1989) defined "development" as "the advancement of knowledge, skills, and competencies, and the improved behavior of people within the organization for both their personal and professional use" (p. 5).

HRD professionals exist in a world that is constantly changing. Changes in society, technology, and information are all occurring at a more rapid pace than ever before (Gooler, 1990). Organizational structures and strategies, evolving employee attitudes and needs, new technologies, and an information explosion are some of the shifting forces that create a continuous demand for workplace learning. Lifelong learning, especially for HRD professionals, has become a necessity of contemporary life.

While much of lifelong learning for personal, community, and workplace needs is accomplished through the formal educational system, a large degree of learning occurs informally and outside of the traditional means.

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Darkenwald and Merriam (1982) recognized a continuum of adult education, ranging from highly formal to highly informal. They stated that, "We might consider as highly informal any purposeful, systematic, and sustained learning that is not sponsored, planned, or directed by an organization" (p. 152). They included, in the informal category, not only self-directed instruction, but private instruction via individual or group lessons, and informal groups and clubs where adults focus on specific subject matter areas for mutual education; and networking, where individuals with common interests gather for learning and mutual support (Darkenwald & Merriam, 1982). For this study, informal learning was defined as learning that is non-credit, person-to-person transactions, or self-directed.

As contemporary change and complexity continue to expand, informal learning is becoming increasingly important to the workplace (Marsick, 1987). As learning specialists, HRD professionals are responsible for organizational and individual learning, as well as for their own continuing professional learning and development. Marsick wrote that:

> Learning calls for a flexible capacity for continual reflection on one's actions, and at times for critical reflection, that is for digging beneath the surface to examine taken-for-granted assumptions, norms, and values. Much of this learning takes place informally - - through daily professional interactions and self-directed learning. (p.9)

Whereas many avenues of learning are available to adults for informal, lifelong learning as private individuals or in groups, or professional education provided by outside sources, the learning network promises to be an integral part of the learning system in America. In addition to learning to meet the needs of today, HRD professionals must examine their personal and professional development in order to fulfill the demands of the future. Professional development is the "process of keeping current in the state of the art, keeping competent in the state of practice, and keeping open to new theories, techniques, and values" (Chalofsy & Lincoln, 1983, p. 21). Professional development can be accomplished formally through seminars, classes, and workshops offered by continuing education providers. It can also be achieved informally through learning networks with very little cost.

Research Questions

Specific concerns that emanated from this problem were twofold. First, why do HRD professionals participate in this learning network? And second, how do they utilize new knowledge acquired through the network?

Method of Research

Because a learning network may be thought of as a community, the anthropological research model was applied. According to this model, two components are needed to reach an understanding of such a unit of study. The first component addresses the question, "Why is this study being done?" That is, what conceptual thoughts guided collection and analysis of the facts? The conceptual frame here was qualitative and naturalistic. The second component addressed the logic and plan of the research design, including technological aspects such as data collection, field procedures, and coding.

Qualitative research is an approach, rather than a particular set of techniques and its appropriateness derives from the nature of the social phenomenon to be explored (Morgan & Smirich, 1980). Filstead (1970) concisely described the usefulness of this approach for this type of study in this way:

> Qualitative methodology allows the researcher to get close to the data thereby developing the analytical, conceptual, and categorical components of explanation from the data itself - rather than from the preconceived, rigidly structured, and highly quantified techniques that pigeonhole the empirical social world into the operational definitions that the researcher has constructed. (p. 6)

Brookfield (1983) stated that qualitative research methods are particularly appropriate to informal learning situations, such as the learning network. Research methods utilized in this study were therefore qualitative, because they provided a holistic view of the educational setting and the learners in a learning network.

There were two major foci of this research project. The first focus was to explore the nature and extent of adult learning that occurred as a result of participation in an HRD network (HRDN). The second was to illuminate and understand the contextual setting, personality composition, and conceptual base of such a network. This research was designed to examine such questions as:

- To what extent did adult learning take place in this HRDN?
- What was the nature of this adult learning?
- In what ways did learning in this type of environment empower participants to take control of their own continuing education?

- Did the relationships of the group result in learning experiences that were satisfactory for most members?
- What would be the potential advantage of establishing expanded linkages for a peer-learning network (advisory boards among business, government and the voluntary sector, and higher education human resource development (HRD) programs)?

The qualitative method, grounded theory, was appropriate because human resource development networks are not usually large enough or stable enough to utilize strictly quantitative methods of analysis. Grounded theory (Glaser & Strauss, 1967) is a method of social research that is concerned with the emergence of theory from data that has been systematically gathered and analyzed. It is characterized by inductive fieldwork and emphasizes the discovery of theory that is grounded in analysis of the data. Also, grounded theory is also particularly appropriate when investigating new areas of inquiry, problems for which little theory has been developed, such as learning networks for professional development.

Findings of this research provide a "naturalistic understanding" (Lincoln & Guba, 1985) of a particular phenomena of adult learning, including the environment of the network, the way that this network developed and survived in the context of voluntarism and continuing education, and, the perceptions of individual learners as to specific benefits of being a network participant.

Thompson (1985) suggested the following guidelines when a holistic view of a phenomenon is the target: "to understand, not to judge; to begin the study of phenomena, not to arrive at conclusions; and, to involve the subjects in study, not to study them in the abstraction of numbers and percentages" (p. 67).

This modality of research stressed the importance of understanding roles, motivations, values, and underlying assumptions, all of which add to the holistic understanding of adult learning in networks.

Grounded theory was also selected as the research method for this study, because it facilitates the presentation of detailed and rich information concerning the dynamics of adult learning within a voluntary organization. This research was an intensive investigation of the perceptions of experienced learners within the HRD network at Northern Illinois University, DeKalb, Illinois and resulted in an in-depth study of the background, current status, and interactions of given network members (Isaac & Michael, 1983).

Self-Realized Limitations

The researchers' involvement with the network provided motivation for initiating this study. This study does not pretend to be objective due to the researcher's personal involvement. Every attempt was made to obtain and interpret the data in an impartial fashion.

Researcher bias was controlled through the three-way process of data collection, coding, and memo writing (Glaser & Strauss, 1967). In qualitative research there is a general overriding issue of objectivity. Spradley and McCurdy (1972) illuminated this problem in the following manner:

> There must be a recognition that complete objectivity is impossible, that personal prejudices and ethnocentrism influence data collection, and that selective observation and interpretation always occur during research. (p.18)

Bogdan and Biklen (1982) recommended that researchers be aware of this bias and reflect on their own interpretations and personal prejudices with detailed field notes. Continuously monitoring the subjects' views against the researchers' reactions guard against researcher subjectivity.

Results and Findings

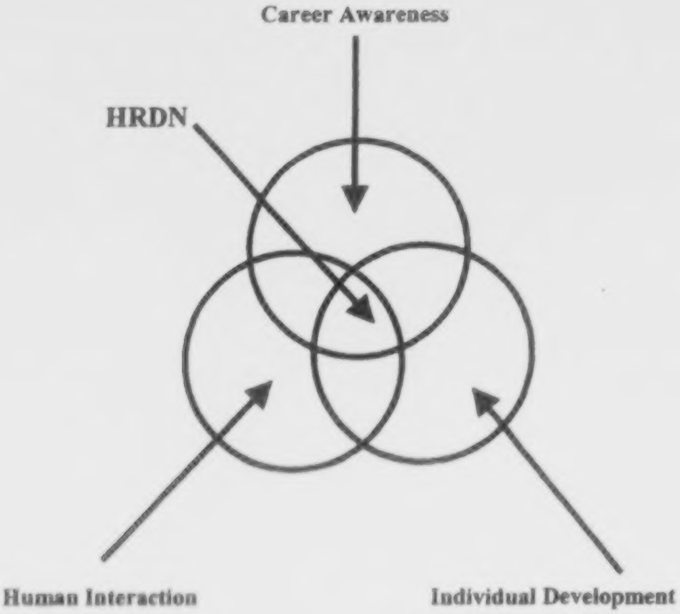
The three categories that emerged from the data-gathering process from interviews with participants in the HRDN were: (1) career awareness, (2) human interaction, and (3) individual development as illustrated in Figure 1.

Career awareness

Career awareness was related to professional concerns of improvement on the job, changing within a career field or between career fields. The emerging properties were job relatedness, career development, and career modulation.

Job relatedness concerned discoveries made by participants that related to improvements on a current job, exposure to new job sources, internships that were not available in the adult education program, and areas of learning in HRD that could benefit organizations. The first characteristic of the job relatedness property was how the HRDN addressed issues that were immediately applicable to the work environment. Members found support from

Figure 1: CHI Model of Learning



other network participants for their current positions. They received encouragement and reinforcement at HRDN meetings and said that network meetings were thought of as a reunion, where members gathered to share ideas and support each other. A second characteristic of the job relatedness property was usefulness of the network as a resource for jobs and internships. Participants said that they believed the network yielded many opportunities for acquiring jobs that were not usually advertised openly. Exposure to new organizations, through conferences and site visits, were abundant. Members of the network were provided with many opportunities to obtain or provide quality internships. Organizations benefited from network associations by gaining highly educated and skilled individuals. The final characteristic of job relatedness was the HRDN's proficiency at recognizing current movements, such as the learning organization and strategic HRD, and incorporating them into specific programming for network meetings.

Career development included two prominent characteristics of continuing professional education and enrichment for HRD jobs and class work. The first characteristic was achieved in the network through exposing participants to different kinds of learning experiences that are normally only available to those who would actually be the recipients of the professional training sponsored by a business or institution, or offered commercially for financial gain by the provider. These HRD practitioners said that network site visits gave them a unique type of non-credit professional continuing education and created an elevated level of intellectual involvement. Learners achieved a form of continuing professional growth by acquiring an increased exposure to various facets, contexts, and applications of HRD, and by becoming more aware of issues of career development for HRD professionals.

The second characteristic of the career development property was the HRDN as a source of enrichment for HRD jobs and class work. Members were able to get feedback and reflect on projects for classes, or writing articles for professional journals. Network experiences helped to build upon expectations of previous understandings of HRD, what people in HRD really do, and the specific skills required to execute essential HRD roles.

Career modulation was the third and final property of the career awareness category. For this research, career modulation is defined as movement within an HRD career, or movements to an HRD position from a different career field. Participants gained an exposure to various aspects, facets, and contexts of HRD, as well as career possibilities. They were sometimes surprised by the many different applications of HRD and how they could be utilized. Participants learned that the variety of skills they possessed could be readily transposed to an HRD position.

The first category, career awareness, revealed properties that included issues of job relatedness, career development, and career modulation (changing careers). This first category yielded valuable properties for development as HRD professionals in current and future careers. Career awareness, for these participants, encompassed a lifelong process related to the examination of self, self-development, implementation, and planning of career goals. The emphasis was on promoting growth and development in the career sphere of the individual life of the HRD professional. While many participants indicated that furthering of individual careers was the initial reason for their network attendance, the data strongly suggested that it was not the only motivation for participation.

Human Interaction

The second category that emerged from the data, revealed the importance of involvement, participation, and interpersonal communication, and quality of work-life environment as important characteristics to participants.

Involvement and participation were important because they encompassed human interaction and created a sense of ownership by the primary stakeholders of the network. Participants found great motivation in the process of program planning, decision-making, and control of their own leaning. Participants also developed their own organizational culture through this participatory process and even worked as a group to create the HRDN logo, which visually and concretely represented the values of the network.

Interpersonal communication, and a like-mindedness among participants resulted in a sharing of resources for knowledge and research. By talking with each other, participants discovered that the HRDN offered a medium to exchange ideas and concepts. Most interchanges of information were face-to-face and were engagements of informal interactions. This human networking was an important motivation for learning in the network. The HRDN laid the foundation for open communication among participants. There were no hierarchies to clog communication, and everyone was free to interact with each other in a non-political way. Therefore, the human connection was a significant drawing point for network success. The network was sustained by a horizontal interrelationship of colleagues. Network participants supported each other in HRD work and learned from one another by sharing information and experience.

Quality of Work Life Environment

The quality of work life environment included trusting relationships, collegial learning, and network members as change agents. Through its very existence, the network enlightened participants on improving the quality of their personal work lives and environments. The importance of trusting relationships demonstrated the collegial interdependence with superiors and colleagues. Participants achieved social contacts in the network that later developed into professional relationships and interchanges. The network served as a catalyst for the cultivation of these associations. The network was unique because it provided professional experiences and relationships without the risk of negative or positive job ramifications that might ordinarily accompany a professional situation. The network consisted of people who were trusted by their colleagues for information. Therefore, new information and learning were more likely to be adopted, because the level of trust gave credibility to new concepts that were being tested. Collegial learning occurred because people networked in a social situation that provided valuable informal learning opportunities. Information was freely given, without consultative charges and within an atmosphere of trust. Personal trust and respect yielded empowerment for learning within the HRDN. Relationships were based on high intellectual standards and respect for learning and information.

The third and final characteristic of the quality of work life environment category was network members as change agents. Participants viewed themselves as catalysts for change. As HRD professionals, they assisted organizations and people with adaptation to environmental fluctuation. The HRDN encouraged individuals to develop their skill levels with the confidence to adopt new ideas. These early adopters within the network had a finely tuned sense of intuition and an ability to synthesize what is going on in the environment. This intuition enabled them to know where to go to get information, who had credibility, and in ways to share new knowledge. Concepts and ideas were congealed and solidified. Intuition allowed them to make small connections that appeared to be giant leaps in helping organizations and people change.

Conclusions and Recommendations

Professionals in the HRD field have a personal and professional responsibility to further their education beyond a formal degree program. Unfortunately, to rely only on pre-determined classes that are designed by an institution of higher education or professional presentations, without the opportunity for personal interaction, only touches the surface of the actual knowledge that exists in the realm of practice. It also denies the experiences of other professionals and the fact that professionals can create innovations through experience. Networks, structured similarly to the one described here have the unique capacity to accommodate these additional avenues of educational experiences and legitimate the creation of new knowledge.

These data lead to a new model of continuing development for HRD professionals. Learning in the HRDN was a form of continuing professional education and that learning was extremely successful in three distinct areas. These areas generated the categories of career awareness, human interaction, and individual development. The interaction of these three areas suggested a process model of learning. This interrelated model of learning was a support system for its participants and is described as the CHI Learning Model. The CHI model of learning is a visual representation of the three categories of data that emerged from the data.

Chi originates from the eastern tradition of life energy. All things that exist require this energy and are interrelated in their giving off or absorbing the vitalizing energies around them. Energy flows both from the chi to the living object, and in reverse. Without this interconnectedness, the relationship of living things to this unseen energy would be broken, resulting in illness and a lack of continuing growth. In HRDN each category that emerged was critical to the life-blood of the network's existence. If any one category were lacking, the others would not have had the continued success that was evident from the research. In turn according to the data, this learning network regenerated itself by providing reflexivity. All three categories were complementary to each other and to the HRDN as a whole entity. The categories that emerged were also interdependent upon one another. If one category changed or became more dominant, the others appeared to respond to this action by becoming temporarily subdominant.

The "C" in the model represents the career-awareness category that unfolded throughout this research. Career development was at the core of the network's reason for being, and by developing individual careers, participants contributed back into the network, through providing job and intern resources, contributing their experiences on a related topic, suggesting future site visits, or sharing how a particular topic relates to them personally.

Central to the learning network is the category of human interaction. This category is represented by the "H" in the model. Participants stated that they wanted personal contact with other people who were interested in HRD. Participants repeatedly said that face-to-face contact was important and the primary motive for them to make the effort to drive to network meetings after work on a Friday night or Saturday. Communication among participants could have taken place more easily via the telephone or the Internet, but these media would not have replaced the interpersonal interactions experienced at meetings. Participants were able to receive and give feedback to others on a one-to-one basis. Information gained in this manner often changed the way a participant interpreted a topic and creativity emanated from this exchange of ideas.

The category that emerged on individual development is represented by the "I" in the model (Quality of Work Life Experience). Participants invested time and effort in network activities, because they were developing personal skills as individuals and HRD professionals. They said the quality of network learning was excellent and filled in the gaps of learning they found in their class studies. In turn, their network learning was internalized and processed and reflected back on class work and interactions within the HRDN. Unique to this CHI Learning Model, is the interrelatedness among the three categories. The CHI model is like an amoeba that constantly changes direction and shape. The three circles of the CHI model represent the three categories of learning for individual participants. The circles, however, are never the same and certainly not symmetrical. The process model is fluid and ever-changing. One circle may interact predominately with one circle and yet remain slightly with the third. While this relationship can change at any given moment, the HRDN is always the focal point that links the three circles. Even though the potency of a circle may change, the common link remains the fact that each circle is always in some kind of relationship to one another. Connection is at the core of the model and provides opportunities for all of the learning and interactions.

Participants in an HRD professional learning network can be compared to amoeba, because they too are constantly changing learning emphasis according to their needs at a particular moment. Even within one learning experience, new needs, and therefore emphasis, may arise due to new information that is consumed and processed. Digestion of new material not only changes what is already known, but may transform a participant's outlook on future unfamiliar information. Attitudes and perspectives become transfigured to the point of the blossoming of new species of thought processes. While each category represented a branch of learning in a participant's educational process, the three branches never carried equal emphasis. The model remained fluid and changing - when participants learning needs changed, that particular facet of the learning model received more emphasis.

Based on the data all three categories of the CHI model, career-awareness, human interaction, and individual development were redefined in light of each other. They appear now (in the model) to be a kaleidoscope that changes at each turn of the cylinder, because the interactions of participants and their knowledge base constantly changed as they learned from each other. Apparently, learning created its own momentum for further learning and change.

This type of informal learning may occur frequently in many venues, but the theoretical aspects of it were not discovered until this study. The CHI model has profound implications for HRD professionals.

Implications for Practice

The HRDN was able to meet a variety of participants' needs, including professional and personal deficiencies. The categories and properties delineated in the CHI model represent the educational benefits that participants derived from this learning network. This model suggests five implications for HRD professionals.

First, learning networks can facilitate the educational development of HRD professionals, whether or not they have completed a formal degree program. The rapid growth of knowledge and communication systems in today's world imposes tremendous demands on HRD professionals to maintain and enhance their knowledge base for themselves and their employers. A learning network offers unique learning opportunities for HRD professionals to customize an evolving knowledge base according to the needs of the participants. Second, HRD professionals, who may be at any level of expertise or training, could create a learning network to fill in gaps in their professional education. Third, HRD professionals would gain the advantage of participation in the process of designing learning programs that could overcome individual deficiencies in a particular job situation. As HRD professionals move from one position to another, adaptation to the new environment can be challenging and time consuming. The learning network could ease the transition. Fourth, any HRD professional who embraces a self-directed learning style could benefit from a learning network because it seems to encourage self-directed learners in creating their own educational experiences. Finally, HRD professionals tend to be early adopters of innovation and the learning network could serve a useful purpose as a testing ground for new ideas. Furthermore, because the presenters of innovations are usually trusted peers who are regarded as credible sources of information, the adoption of these innovations becomes less intimidating. Another effect is the spontaneous appearance of innovations as old ideas are viewed from fresh perspectives. In conclusion, it is suggested that HRD professionals should consider these implications when devising a learning network.

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Perception of Learning Culture and Concerns about the Innovation on Use of Innovation: A Question of Level of Analysis

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The relationship between organizational members' perception of learning culture and concerns about the innovation, and their influence on use of one innovation (ISO 9000) in the Malaysian public sector was studied across 11 such organizations. The findings raised questions about appropriate levels of analyses for such studies. It suggests that theories that try to explain organizational innovation implementation be tested across organizations and take into account organizational context. Otherwise, they could lead to inaccurate conclusions.

Keywords: Learning Culture, Learning Organization, Organizational Change

What is the appropriate level of analysis for studies of the influence of perception of learning culture on innovation? Should one test a model, which proposes a relationship between learning culture and use of innovation, across individuals regardless of the organizations they are from? Or should one test the model across organizations? These questions were raised as a result of a study that examined a mandatory implementation of a large-scale administrative innovation – ISO 9000, an international quality certification system – in the Malaysian public sector.

This study tested a proposed model across eleven Malaysian public agencies that were implementing ISO 9000. On an individual organizational basis the regression analyses showed that the model was able to explain the variance in use of innovation in each organization. However, a comparison of regression weights across the organizations told a very different story. The combination of variables that explained the use of innovation varied radically from organization to organization. This suggests that the model proposed cannot be prescribed generically. It must take into account organizational context. This calls attention to the fact that while one can conceive and test models of organizational change, one must be cautious about making generalizations based on studies of single organizations or case studies. Theories that try to relate variables to explain organizational innovation implementation should be tested across organizations and must take into account organizational context. Otherwise, they could lead to inaccurate conclusions.

Problem Statement

This study was motivated by a gap in the literature on understanding organizational change brought about by the implementation of large-scale administrative innovation. For some organizational development (OD) scholars, an understanding of the impact of a change initiative calls for an analysis of the diffusion of innovation over time and/or space; the determinants of organizational innovativeness; or, the process of innovation within organizations (Wolfe, 1994). Others argue that the focus of the innovation implementation process should be on targeted organizational members' use and perceptions about the innovation (Hall & Hord, 1987; Klein & Sorra, 1996). Learning organization scholars, on the other hand, stress that learning is a prerequisite for successful organizational change and innovation (Watkins & Marsick, 1993). A reading of the innovation and learning organization literature suggests that no one perspective can sufficiently explain this complex phenomenon. It follows that in order to get a more comprehensive picture of the impact of a change effort, one should perhaps use different but related lenses (Wolfe, 1994; Van de Ven & Poole, 1995). Yet research examining organizational innovation implementation from such a perspective is limited.

This study was undertaken to meet this challenge by examining the perception of the innovation implementation (the OD lens) and the learning culture (the learning organizational lens) concurrently in the context of an ongoing innovation implementation in the Malaysian public sector. This was done by determining the

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relationship between organizational members' perception of learning culture and concerns about ISO 9000, and the influence of these two factors on their use of ISO 9000 in the Malaysian public sector.

Background Information on ISO 9000

ISO 9000 is an international quality certification system. Unlike product standards, ISO 9000 standards are for the operation of a quality management system. In Malaysia, these standards are widely accepted as the standard for quality in the private sector. This is because of the belief that ISO 9000 certification provides industry with a competitive advantage especially in the European Union.

What is the drive for the public sector? Malaysian policy makers expect that these standards will lead to changes in current practice with an overall improvement in performance and productivity (Halim & Manogran, 1999). In 1996 the Malaysian government decided that by the end of the year 2000 every Malaysian government agency would have at least one core business process ISO 9000 certified. At the time of writing 52 public agencies have received ISO 9000 certification.

ISO 9000 is considered an administrative innovation for the Malaysian public sector in that it brings about "a particular form of change characterized by the introduction of something new. This 'something new'... [involves] the introduction of new managerial or administrative practices or changes in...the organization" (Coopey, Keegan, & Elmer, 1998, p. 264).

Theoretical Framework

This study was guided by the Concerns-Based Adoption Model (CBAM) of Hall & Hord (1987), and the dimensions of the learning organization as described by Watkins & Marsick (1993, 1996). The dotted boundary in Figure 1 represents the conceptual framework that guided this study. The following is a brief explanation of the model.

The Perception of Learning Culture. The general consensus in the learning organization literature is that learning at the organizational level is a prerequisite for successful organizational change and performance (Garvin, 1993; Ulrich, Von Glinow & Jick, 1993; Lundberg, 1995; Hendry, 1996).

Watkin's & Marsick (1996) indicate that the design of a learning organization depends on seven imperatives: continuous learning; the promotion of inquiry and dialogue; provision of strategic leadership for learning; encouraging collaboration and team learning; establishing systems to capture and share learning; empowering people toward a collective spirit; and connecting the organization to the environment. These seven imperatives were used as a basis for determining employees' perception of the learning culture within their organizations.

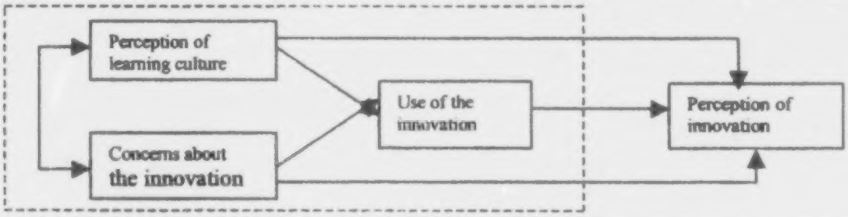

Figure 1. Conceptual framework of the study

The Concerns about the Innovation

The CBAM provides an understanding of the innovation process. This study made use of two important dimensions of the CBAM model: the Stages of Concern (SoC) and the Level of Use (LoU).

The Stages of Concern (SoC). The SoC dimension of the CBAM deals with predictable, developmentally evolving feelings and concerns about the use of an innovation. Hall & Hord (1987) identified seven different stages of concern. In the earlier stages of an innovation implementation (Stages 0, 1, and 2) users report concerns about themselves – "self" concerns about the fit between the innovation and their own skills, values, and roles. As they use the innovation they move towards "task" concerns (Stage 3), issues like how much time the innovation is taking away from their other responsibilities. Only well-established innovations reach "impact" concerns (Stages 4, 5 and 6) where individuals are concerned about the impact of their activities and focus on refining their use of the innovation. The CBAM theory holds that innovations fail if the self and task concerns are not addressed in the early stages of innovation implementation (Hall & Hord, 1987).

The Levels of Use (LoU). The LoU addresses what the users are doing with the innovation. The focus is "on the behaviors that are or are not taking place in relation to the innovation... What people feel about an innovation and how they perceive a situation can be quite different from what they actually do" (Hall & Hord, 1987, p. 81). At issue is the degree of use of the innovation. In this study this construct was operationalized as a continuum of use.

The assumption underlying this framework is that understanding the change process in organizations requires an understanding of the perceptions of the individuals involved in the change, that for the individual change is a highly personal experience that entails growth in terms of feelings and skills in using the innovation (Heck, Stiegelbauer, Hall & Loucks, 1981). Tied to these assumptions is the premise that the learning culture of the organization has an effect on determining individuals' response to change, and therefore their use of the innovation (Watkins & Marsick, 1997).

Research Questions

The study was guided by the following research questions:

1. What is the relationship between each of the dimensions of the learning organization and targeted organizational members' stages of concern about the innovation?
2. To what extent do each of the dimensions of the learning organization independently explain observed variances in targeted organizational members' use of the innovation?
3. To what extent do the stages of concern about the innovation explain observed variances in targeted organizational members' use of the innovation?
4. To what extent can the dimensions of the learning organization and targeted organizational members' concerns about the innovation jointly explain observed variances in the use of the innovation?
5. What are the differences in the perception of the learning culture, concerns about the innovation, and use of the innovation among the different levels of organizational members?
6. What are the differences in the perception of the learning culture and concerns about the innovation on use of the innovation across the different organizations?

Methodology

This study used a quantitative survey method to answer these research questions. The survey instrument consisted of four parts. The first part, which measured the learning culture of the organizations, was an adaptation of the Dimensions of the Learning Organization Questionnaire (Watkins & Marsick, 1996). The second part dealt with organizational members' feelings and perceptions about the innovation. It consisted of questions adapted from the Stages of Concern Questionnaire (University of Texas, Austin, 1974). The third part consisted of questions to measure organizational members' use of the innovation. It was based on the concept of Level of Use for Innovation of the CBAM (Hall & Hord, 1987). The final part of the survey instrument addressed demographic information regarding the respondents.

This study involved eleven Malaysian public sector organizations that had been using the new system for at least a year. The organizations included two training organizations, one medical health provider, two human resource management organizations, one state development corporation, one public pension fund management organization, one provider of education service, and three technical organizations. The final sample size for this study was 628.

Discussion of the Findings

Relationship between Independent Variables. The first step in the analysis of data was establishing the fact that there was no, or at most only a small, collinearity between two sets of independent variables – the seven dimensions of the learning organization, and the stages of concern. This was important as collinearity "may have devastating effects" on the subsequent regression statistics (Pedhazur, 1997, p.295). As it was found that only a small portion of the variance in the dimensions of the learning organization was explained by the Stage of Concern of the individuals, it was reasonable to conclude that the model was attempting to capture the interaction of two conceptually separate independent variables.

Effects of the Learning Culture. Research question #2 dealt with the extent to which the perception of learning culture, as measured by the dimensions of the learning organization, explained the variances in use of innovation in the eleven organizations in this study.

The study showed that as a whole the dimensions of the learning organization explained 31.5% of the variance in use of the innovation. This finding lends empirical support to the assertions made by learning organization scholars that learning is a prerequisite for organizational change and innovation (Garvin, 1993; Ulrich, Von Glinow & Jick, 1993, Marsick & Watkins, 1999). Further, it extends the concept of the learning organization beyond the borders of the United States that perhaps this is not just a western phenomenon. It also adds to the body of knowledge about "planned change applications in third world settings" (Golembiewski, 1998, p. 27).

On examining the details, it was observed that "embedded systems," "leadership," "continuous learning," and "team learning" explained the variance in the use of innovation more than the other three dimensions of the learning organization.

Having systems to capture learning ("embedded systems") had the strongest influence on use of the innovation in this study. Establishing systems to capture and share learning is a theme that runs through the various descriptions of learning organizations (Garvin, 1993; Watkins & Marsick, 1993; Nevis, DiBella & Gould, 1995; Watkins & Golembiewski, 1995; Gephart, Marsick, Van Buren & Spiro; 1996).

Providing leadership for learning is another dimension of the learning organization that had a strong influence on use of ISO 9000 in the organizations in this study. This finding is consistent with the literature on learning organizations. Senge (in Fulmer & Keys, 1998) talks of "committed champions" and their role in ensuring any type of organizational transformation (p. 41). Watkins & Marsick (1993) appropriately use the metaphor of the sculptor when discussing the role of leadership within learning organizations: like the sculptor, "leaders in learning organizations set the vision but cannot effectuate it without considering the feelings, thoughts, and willingness of the people who must make so significant a change in the way they work" (p. xv).

Continuous learning is another dimension of the learning organization that had a strong influence on use of innovation. This is intuitively understandable. The process of getting ISO 9000 certification involves learning how the new system works. This is consistent with Watkins & Marsick's (1993) point that "continuous learning is typically triggered by a problem or a challenge on the job" (p. 26). As the system itself is complex, its increased use would depend on the continued encouragement of learning about the system and its requirements.

Of the four dimensions that influenced use of this innovation, "team learning" had the least influence. The direction of influence of this dimension was negative. This finding is inconsistent with the literature on the learning organization. Senge stated that "the fundamental learning unit in any organization is a team" (in Zemke, 1999, p. 48). One explanation for this negative influence could be that the nature of the ISO 9000 innovation itself precludes team learning.

Concerns about the Innovation. Research question #3 examined the feelings and perceptions of individuals about the innovation. The results of the regression analysis showed that Stage of Concern explained 10.6 % of the variance in use of the innovation. It appears that this set of variables had a relatively small explanatory power of use of the innovation. However, there is no consensus among experts on the properties of the proportion of variance, or R^2. For example, Saris & Stronkhorst (1984) advocate that "for good quality data an R^2 of approximately .90 should be required… [and that] a high threshold is necessary in order to avoid unjustified causal inferences" (p. 271). On the other hand, Goldberger (1991) asserts that R^2 "has a very modest role…[A] high R^2 is not evidence in favor of the model, and a low R^2 is not evidence against it" (p. 177).

The above arguments aside, the findings draw attention to the fact that 27% of the individuals in the study reported nonuser concerns and another 10% reported task concerns. Consistent with CBAM theory, individuals at Stages 0,1,2 and 3 reported lower use of innovation than did individuals who were at Stage 4 (Consequence), Stage 5 (Collaboration) and Stage 6 (Refocusing).

This finding should alert change facilitators to the situation within the organizations implementing ISO 9000. While it is necessary for change facilitators to recognize that having high personal concerns is justifiable in some points of the change process, "it is *not* okay for change facilitators to put down, ignore, or inappropriately address intense personal concerns" (Hall & Hord, 1987, p. 77). As Klein & Sorra (1996) assert, "employees' commitment to the use of an innovation is a function of the perceived fit of the innovation to employees' values" (pp. 1062-1063).

Interaction of Learning Culture and Concerns about the Innovation. Research question #4 examined the extent to which the dimensions of the learning organization, and targeted organizational members' concern about the innovation jointly explained the observed variances in the use of the innovation.

The findings from the regression analysis showed that the model proposed in this study accounted for 36.3% of the variance in use of the innovation. In combination with the Stages of Concern, "embedded systems," "provide leadership," "continuous learning" and "team learning" had the most influence on use of the innovation. Tests of regression weights indicated that both sets of independent variables improved our understanding of the use of innovation over and above what could have been accomplished by using either set alone. More importantly, the Dimensions of the Learning Organization added more to our understanding of use of innovation than did the Stages of Concern. This may suggest that the overall learning culture of the organization has more to do with the use of innovation than what the individuals feel about the particular innovation. This is a significant potential correlation.

Placing the concept of the learning organization and the perspective of the individual organizational members in this research framework fills the void highlighted by a number of innovation scholars (Wolfe, 1994; Hendry, 1996) which call for more complex studies of the range of individual and organizational variables believed to influence adoption of innovation.

A Multi-level Look at Innovation Implementation. Research question #5 examined the differences in the perception of the learning culture, concerns about the innovation, and use of innovation among the different hierarchical levels in the organization.

This study found that there was no statistically significant difference in the use of the innovation across the different levels in the organization. Since implementation of this new system is mandatory, the system has to be used regardless of an individual's level in the organization. This could account for the results obtained.

As for the dimensions of the learning organization, it was observed that individuals in top management tended to have higher scores on most of the dimensions of the learning organization. However, the analysis of variance indicated that the differences in mean scores among the hierarchical levels were not statistically significant. This is surprising. Intuitively, one would expect the view "from the top" to vary somewhat from that of "the bottom."

On the other hand, there was a difference in the feelings and perceptions about the innovation among the different hierarchical levels. A higher percentage of individuals who reported nonuser concerns were from staff level; a higher percentage of those who reported task concerns were from the executive level, and a higher percentage of those reporting impact concerns were from top management. This means that there was a higher proportion of nonusers at the staff level; those at the middle or executive level were voicing early user concerns while those in top management were reporting impact concerns.

The finding that more people in top management reported impact concerns compared to those in the other two levels of the organization is consistent with the literature on managerial roles. The formal authority and status of those in top management lead them to focus on issues such as resource allocation, facilitating collective effort, building cohesion, and the impact of the innovation in their immediate sphere of influence (Quinn, 1988; Mintzberg, 1990).

This aspect of the study, which captures the perspectives of multiple individuals, lends empirical support to the suggestion by Klein & Sorra (1996) that researchers examine between-group differences in innovation-values fit. At the very least it surfaces the perceptions and feelings of the different groups within the organization, thereby providing change facilitators with a map of their concerns. More effective interventions can then be designed and implemented (Hall & Hord, 1987).

Putting it Together. Thus far the discussion has been on the results obtained from examining the first five research questions which focused on the individuals involved in the mandatory implementation of an administrative innovation. The findings based on these five questions can be summarized in the model in Figure 2.

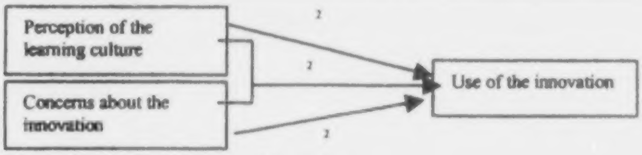
Perception of the learning culture
2
2
Use of the innovation
Concerns about the innovation
2

Figure 2: Model showing results of the study

Learning culture, as defined by dimensions of the learning organization, and concerns about the innovation, as defined by the Stages of Concern, together add to the explanation of the variance in use of innovation in organizations studied. The model suggested explains about 36% of the variance in the use of the innovation (Figure 2).

At the macro level it appears that each of the sets of independent variables add to the explanation of use of innovation, and that within each set there are variables that better explain the variation than others. However, on closer scrutiny, it appears that there are variations to this big picture which raise compelling questions about the interaction of the variables in different organizational contexts. This was examined in research question #6, which involved a test of the final model across the eleven organizations in study.

A Multi-Organizational Look at Innovation Implementation. Research question #6 examined the differences in the perception of learning culture and concerns about the innovation on use of the innovation across the eleven organizations. It also examined the level of use of the innovation across the eleven organizations.

The study found that the use of innovation ranged from an average of 36.37 in Organization 9 to 44.06 in Organization 2 (see Table 1). This means that all the organizations were using the innovation at an acceptable level (the range for "use of innovation" scale in this study was from 9 to 54). Of importance therefore would be the ability of the proposed model to explain the use of innovation across the eleven organizations. This was done by conducting regression analyses using the model proposed for each of the organizations.

The results showed that the model proposed was able to explain a "significant" portion of the variance in use of innovation in all eleven organizations, with R^2 ranging from .28 for Organization 7 to .86 for Organization 9 (see Table 1). However, a comparison of regression weights of all the variables in this study across these organizations indicated that the variables that explained level of use of the innovation varied radically from organization to organization. This means that each organization had a different combination of variables that influenced its use of the innovation and that these variables interacted differently, or had different roles within each organization, with different effects on their use of the innovation (see Table 1). For example, in Organization 1 it was the Stages of Concern in combination with "embedded systems," "systems connections," and "provide leadership," which explained 67.4 % of the variance in its use of innovation. In Organization 11 it was the Stages of Concern in combination with "continuous learning," "dialogue and inquiry," "embedded systems," and "provide leadership," which explained 68% of its variance in use of the innovation.

Conclusion and Recommendations

This study adds to the body of knowledge on the importance of learning in organizational change and innovation. In addition, it extends current research on the learning organization and organizational innovation implementation by providing a model that facilitates the concurrent examination of both constructs. More importantly however, this study raised questions about the appropriate level of analyses for organizational studies similar to the one done here.

The analysis across the eleven organizations questions the findings obtained from analyses at the individual level. This study found that the variables in the model combined differently within each of the eleven organizations. This provides compelling evidence for researchers to bring into focus organizational context in attempting to understand the process of implementing organizational innovation. There are nuances, perhaps political, perhaps functional, which appear to impact the way the variables interact. It responds to the call that researchers move beyond single-site research (Wolfe, 1994; Klein & Sorra, 1996) to cross-site analyses. Studies that make inference based on a commingling of data from multiple sites lose significant variance as seen here. It also confirms the concern expressed by Evan & Black (1967) a quarter of a century ago: "without comparative research on the innovation process in various types of organizations, we can only speculate about the generalizability of elements in the innovation process" (in Wolfe, 1994, p. 416).

This study also suggests that there is no recipe for successful organizational change and innovation. What it does provide is a model which change facilitators and change agents can use as a guide in creating learning organizations or in introducing innovation and change into organizations. In other words, consultants and change agents should not be prescriptive, neither should they replicate models for innovation implementation without paying attention to the organizational context of the change. Ultimately, the uniqueness of the organization must prevail. It will be their ability to fit the innovation and its implementation to their local culture that determines the ultimate success of their efforts.

Change scholars and practitioners will be simultaneously concerned and relived by these findings. As scholars seek to identify generalizable characteristics of a potential learning culture, practitioners have argued, "But it doesn't work that way here." What this shows is that by using both the individual and the organization as units of analysis, we can simultaneously draw limited, cautious generalizations for changes while reassuring practitioners that they are indeed correct; they really need to adapt their approach to the context.

Finally, ISO 9000 is a controversial innovation, with a heavy emphasis on documentation procedures and paperwork. Some might argue that the features of ISO 900 conflict with the characteristics of a learning organization such as empowerment. Looking at these results by organizations, we would assert that, depending on the fit of the innovation with the organization, organizations high on the learning organization dimensions may be less likely to use this particular innovation. Clearly, the complexity of the change process requires research approaches that, like this one, are equally complex.

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Table 1. Comparison of Perception of Learning Culture, and Concerns about the Innovat
and Use of Innovation across the Organizations

Variables / Org	D1	D2	D3	D4	D5	D6	D7
1 (n=98)	.31	.04	-.32	**.42***	.33	**-.69***	**.31***
2 (n=33)	-.09	**.47***	**-.70***	.66	-.28	.04	.48
3 (n=46)	-.85	.39	-.78	**1.15***	**-.64***	.33	**1.30***
4 (n=80)	-.05	-.03	.23	.29	**.84***	-.39	-.09
5 (n=85)	.28	.001	**-.66***	.53	.56	.01	.27
6 (n=53)	.39	-.07	.02	-.22	.12	.65	.13
7 (n=63)	**1.19***	-.51	-.57	**.91***	.12	-.47	-.47
8 (n=26)	.77	-.55	-.05	-.14	-.39	.88	-.37
9 (n=19)	.54	.08	-.11	-.34	-.34	-.77	**1.98***
10 (n=39)	-.29	.58	-.34	**-.98***	**-1.35***	.88	**2.63***
11 (n=86)	**.67***	**-.74***	.02	**.76***	**-.43***	-.22	**.84***
Full model (N=628)	***.16****	***-.021***	***-.14****	***.30****	***-.36***	***-.25***	***.26****

D1= continuous learning; D2= dialogue & inquiry; D3= team learning; D4= embedded systems; D5=
the dummy variables used for the Stages of Concern. a = this stage of concern was not reported. b = t

ion on Use of Innovation,

S0	S1	S2	S3	S4	S5	R^2	adjusted R^2	Use (s.d)
21.9*	1.84	-7.11	**-12.44***	-2.37	-5.72	.674	.623	40.09 (8.68)
a	**-4.94***	-3.34	-5.24	b	**-3.68***	.721	.575	44.06 (4.63)
a	3.91	6.73	b	**13.44***	4.22	.613	.487	38.17 (10.4)
a	-4.11	**-8.47***	1.05	-6.12	**-7.05***	.453	.356	38.24 (8.48)
a	-3.70	-1.78	**-8.62***	1.20	-1.91	.575	.504	36.54 (10.3)
a	-9.54	-5.25	-3.77	-3.26	-5.76	.489	.336	36.81 (8.63)
a	**-14.13***	**-9.24***	**-6.59***	**-9.16***	**-9.04***	.421	.282	38.82 (8.61)
-1.54	4.54	**13.73***	b	4.72	3.80	.714	.450	43.34 (7.02)
a	-1.71	4.53	-5.28	b	5.64	.944	.855	36.37 (7.21)
a	5.02	5.52	11.31	5.57	3.10	.684	.538	40.38 (9.04)
7.95*	-1.56	-3.41	-3.59	.92	.77	.679	.620	39.16 (8.88)
-.98*	***-.17***	***-.20***	***-.65****	***.074***	***-.17***	***.363***	***.350***	***38.95*** ***(8.96)***

empowerment; D6= systems connections; D7= provide leadership; S0, S1, S2, S3, S4, and S5 are
hese variables were excluded (collinearity tolerance = .000); *p< .05

"Shared Vision": Are We at Risk of Creating Monochromatic Organizations?

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Building shared vision attracts attention in HRD and management literature because an organization that collectively "sees" ahead through future search, scenario-building or other means, must logically be positioning itself for a better future. Helping to create the vision, watching others endorse it, and understanding that paychecks depend on its implementation may make advantages accruing from a unitary, shared vision seem obvious. We may listen but not hear important voices and ideas in the blending process.

Keywords: Shared Vision, Learning Organizations, Group Consensus

The problem is that semantic, philosophical, social system orientations, and practical applications are among the issues embedded in notions of and advocacy for shared vision in organizations. We have seen many approaches, but no sure-fire prescriptions for making the process of building shared visions and implementing them predictable. Kouzos & Posner (1987) and Senge (1990) are among organization theorists who sensibly note that having some kind of vision is better than having none. However, Weisbord (1992) with a long history of conducting and examining future search conferences, admits that regardless of the energy and enthusiasm present during the conference, describing a collective vision does not guarantee successful implementation every time. From private conversation with a corporate executive who has a long history of being concerned about learning in organizations, I heard a far more radical skepticism: "There is no such thing as shared vision." Only individuals have visions, he continued, and how they work these out in organizations is often a very personal and carefully negotiated thing.

This is the dilemma for HRD practitioners: while we have a hunch that developing shared visions holds real promise for recreating organizations, we still do not have an accurate sense of what shared vision means, and whether or to what extent it dominates or obscures the colorful, creative visions of individual persons who work there. We do like inspiration and excitement. But we're human, and we often accept ideas at face value, lacking a critically reflective attitude toward those ideas and principles we find attractive. We especially like the idea of a vision that all can share and act upon. Weisbord is cautious, asking whether building shared vision is skirting "the bottomless pit of irreconcilable differences" and simply agreeing "to put our energy into working the common ground" (p. 11). Spending his life in pursuit of this common ground, he nevertheless maintains a critically reflective stance toward what he does and encourages others to do the same. It seems a useful way to regard HRD practice dilemmas.

The level of abstraction of visions imposes yet another constraint on the practicality of shared vision. Senge views visioning as an "unearthing of shared 'pictures of the future'" in pursuit of "lofty goals" (1990, p. 9). Assumptions about intentionality and community seem freely built into the literature. For example, Richardson (in Weisbord, 1992, p. 320) describes the emergence of the following shared vision at a conference of disabled persons, their parents, and health care and government officials.: "Every person in Australia has the right to live a socially respected life in the community of their choice." Surely a vision so commendable that 90 people present had agreed upon it would not be seriously challenged, but there are no clues, regardless of good intentions, about how the vision might be operationalized legislatively. This is often the "make or break" point for organizations: After the vision, then what? Does sharing show up in rewards and other outcomes, too?

Theoretical Framework

Kouzos and Posner started from the position, popular at the time, that it is visionary leaders who initiate and develop the "seeing" and then "enlist" others in the vision. This they discovered through a variety of survey and interviewing methods. Some leaders they interviewed discounted

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the use of the word vision, and preferred to speak in terms of personal agenda or purpose. While the researchers moved on to discuss the "collective nature of visions" that "attract people to common purposes (p. 85)," they continued to focus on the leader's responsibility to "develop a deep understanding of the collective yearnings" of employees "through careful listening (p. 115)." Senge et al (1994) started in the same place, but then proceeded to divide the forming of vision into five stages, with the final stage clearly depending on the grassroots organization for "co-creating" the shared vision process (p. 322). The intervention stage and strategy would be selected to reflect organizational readiness for various degrees of participation. There are variations on these positions throughout the literature.

Personal engagement of employees in the "business" of organizations has at least some historical roots in the development of Sociotechnical Systems Theory (Pasmore, 1988). Other roots lie in the work of human relations pioneers like Lewin and Lippitt who are widely quoted and referenced (e.g. Weisbord, 1990, 1992). When we use code words like participation, partnership, shared vision, collective "buy-in", interrelationship, team-work, "getting everyone on board," commitment, culture of learning -- we are at once recognizing the power of sharing *and* stating that it is a sine qua non for vitalizing human organizations. These terms cannot be separated from their connection with the group dynamics and processes of building shared vision. Neither can they be separated from the research on what conditions are necessary in organizations in order to encourage learning. Further, in an era when we are dealing with degrees of diversity and complexity in organizations that we had not previously imagined, theoretically grounded systems thinking offers meta-cognitive ways of addressing the unresolved tensions between individual purposes and organizational needs and allows us a critical perspective on the claims for shared vision. If HRD itself is an evolving system (Willis, 1996), ecologically interdependent with the social systems, commercial or non-profit, that it serves, then the social tensions between individualism and collectivism and their potential resolution in community are also of theoretical interest to those researching shared vision.

Research Questions: Emergent

The case study reported here was to have been a first stage in an on-going study of the formation of an organization. I had no interest in categorizing the organization as voluntary or profit-making, nor in drawing out the characteristics of different types of organizations. This has been done by many predecessors. What intrigued me was that this organization had not yet "jelled," had an overt and avowed interest in becoming a learning organization, was very much concerned to enact many of the futuristic notions of organizations they had encountered in their HRD practices, and was willing to meet for several hours at a time at least once a month. It seemed to me that this was the perfect "time and attention" situation that higher-order learning and making commitments to persons and organizations require. My longitudinal research plan was to act as participant-observer every step of the way, to document what I saw and heard and experienced, and, from time to time, collect data more formally as the group desired or required. Research questions were so "grand tour" that they are just expressions of vibrant curiosity… the starting point for all exploratory research What would happen? How would group dynamics unfold? What would be the major learning events? What would we value most? What would I personally learn and how could I translate that into other parts of my life? What networking advantages would we gain, collectively and individually? Other research questions could be expected to emerge from the data as it was gathered.

For reasons detailed below, the longitudinal case study has evaporated. While many observations and field notes were made, the goal here is to submit only this small segment of evidence, calling attention to the need for further research to illuminate what coming together to create shared vision means. Only analytical, not statistical generalizations are claimed. A fundamental assumption in reporting this single case study is that the concept of *shared vision* is subject to many different interpretations, depending on what we mean by "agreement," and depending on whether we view it as an overriding of dissent, a cultural acquiescence, or perhaps an ecologically ethical meeting of minds. Each *may* have different consequences. Deeply embedded in each person's point of view about shared vision are also tacit assumptions about what *individualism, collectivism, and community* mean. Possibly our distrust of "isms" shades the meanings of the first two terms. "Community" seems to be a safer word, having less controversial connotations. In any of these visionary conditions, it makes sense to ask the question: whose vision is it, anyway? The results of the study seem to bear out the concerns that many gender and diversity researchers have expressed about the possibility that familiar world views may dominate less conventional or less familiar world views in our organizational futures.

The study is limited to one case, because it is one of a kind. It is rare to be present at the "birthing" of a new learning organization which without profit motive wishes to serve as an incubator for creating learning organizations. That seemed to be the shared vision that was trying to be articulated. Standard data coding and sorting procedures were used, amplified by post-taping phone interviews conducted with a small number of group members as a content validation measure.

The Case

What does "sharing" such an idiosyncratic phenomenon as a vision really mean? This goes far deeper than the question of how the sharing is obtained, or even the question of whether collective good is the goal of sharing. The question is: what is sacrificed when a diversity of visions is channeled and articulated as a unity? What are the colors that are lost, and does their loss really matter? Where do the colors go? If these were merely rhetorical questions, the events of the case study reported here would not have happened, and there would have been no need to begin and end this report with reflections about the purposes and effects of shared vision, and what happens to individuals who either "buy in" or do not.

The case concerns a voluntary organization of human resource development practitioners in the southeastern United States. This group was specifically aware of the literature on shared vision. The organization was in start-up mode and considered itself a "design team," a small core group that had set itself the task of figuring out what exactly it wanted to be or do on its way to becoming a learning organization. No one was asked to join who did not have a practitioner background, and all who joined earnestly desired to use their HRD practice to make the world a better place for everyone. While most were geographically clustered in a major metropolitan area, some came from a considerable distance, accruing frequent flier miles at their own expense.

Asked to join the group explicitly because I had grounding in process observing, research, and general system theory on top of practitioner experience and university affiliation, I was quickly folded into the core group. I continued to view this as an exciting, in-on-the-ground-floor opportunity to see how a group that from the outset meant to constitute itself as a learning organization might evolve. It was of particular interest to me to see how --or even if --this new interest group could define itself differently from other self-help professional associations each of us had previously experienced. Since we openly discussed our reasons for being there, my participant-observer status and the fact that I might do research on group process were not secret. Additionally, each of us was asked to submit by e-mail our own personal, written visions of what we wanted the organization to become.

Collecting Data

Participant observers have a built-in bias because they cannot ever fully extract themselves from their group participation. I did refrain from the written visioning exercise, and from other shaping events when I thought I might exert undue influence on the group. Like most researchers who favor the qualitative paradigm for social science research, I had already confronted what Denzin and Lincoln (1994, p. 12) call the ethics and politics of research, finding with them that value free inquiry of any "persuasion" is a logical inconsistency. Data collection was longitudinal and accomplished by various means. I was 1) careful to keep participant-observer field notes, 2) was consistently present for regular, announced meetings, 3) conducted informal interviews with other participants 4) was very active in the exchanges of e-mails, of which I made hard copies, and 5) with permission, tape recorded our deliberations at a critical juncture in the life of the organization. The recording was transcribed by an assistant who did not know the people involved and who never attended a meeting. This transcript furnishes the rationale for questioning what "shared vision" means to people, and to what extent it is used to test expectations we have of other people particularly under conditions of stress.

Organizational Profile

The group consisted at any point in time of from 6-18 members, with assorted guests who came with members to see what happened and whether they would also like to affiliate. By the time I was invited to join, an informal leader was in place, volunteering to convene the group and to be a liason person to contact similar groups around the country. Another person acted as recorder, distributing materials and updating group information by e-mail. Others stepped up to facilitative roles and similar tasks as occasions demanded. Attendance was not consistent even for the core group, although certain individuals, including those who had assumed specific duties, were reliably present. These were long, monthly luncheon meetings, with time for conversation and time for deliberations. An easy camaraderie seemed to develop; people were glad to see each other and looked forward to "touching bases" and hearing each other's stories. Members were independent consultants, internal consultants in some of the high profile businesses in the region, and also internal consultants from the government sector.

A major topic of discussion was how to organize, or even if to organize, i.e., deciding the issues around how formal or informal we should remain. Because we had this conversation over and over, in many forms, it was clearly a source of tension. We stated and restated positions. Some were concerned to "grow" the membership; others seemed uncommitted to growth, saying that structure and growth were not high values for them and that what they wanted was to be able to gather informally and learn from each other in a group where high levels of trust were operating.

In retrospect, it is probably not an overstatement to say that there was a built-in schism from the very beginning, with those of one persuasion desiring structure and rules of operation, allowing for budgetary support and project development, and those of a different persuasion desiring to protect the group as an oasis for reflection in the course of busy lives. When a "charter" member later exclaimed that we had no "shared vision," this is what she meant. When a person who joined at a later date said that in a learning organization there should be room for multiple visions, implying the need for individuality, the edges of the schism were etched in plain view.

The reality was that there were assumptions afloat about a shared vision that some members were not even aware they had signed up for. This seemed especially at odds with these members' expectations because there had been much talk about evolving toward different subgroups that would meet differing needs, so that people could choose their levels and types of involvement. Before the group had reached that point, however, it had collectively approved by-laws. Legalization as a formal entity with a snappy acronym was underway. We were becoming dues paying members and we would soon be having elections.

What was also underway was planning to sponsor a Fall event for the express purpose of announcing ourselves to the public, providing an interesting learning opportunity, and growing our membership. We worked against a deadline, because the intention was to offer this event in conjunction with a national meeting of like nature. This became the defining moment for the organization. We failed.

The Fall event was euphemistically "postponed" when it became apparent that we had neither the funds to carry it out nor a real sense of unity about the importance of the event. We also had very few people to carry the burden of responsibility, partly because the membership was small in the first place, and partly because some were waiting to see where they would be needed and how they could best contribute. Misgivings had been expressed in several ways, on several occasions, but planning had gone forward to the point of obtaining mailing lists, preparing a brochure to mail, and even sending some out --which later needed to be recalled. This occasioned considerable embarrassment.

It was at this point, in the midst of our painful analysis of what went wrong, that the group agreed to participate in a tape-recorded debriefing. It was scheduled ironically on the night our event was to have occurred, simply because we all had that date reserved in our calendars. We thought we would get maximum attendance of our group for that reason, and we especially wanted to hear from those who seemed to have stayed on the fringes of the group. What were their perceptions?

Findings

Salient themes and patterns that emerged from the 28-page transcript were these:

- *There was commitment of group members to each other, but that did not translate into heavy commitment to the group project.*

  This lack of commitment seemed the first clue to the tenuousness of "shared vision." The more active members appeared totally unprepared for this, and lack of commitment was accounted for in the transcribed comments in a variety of ways:

1) *personal and professional over-commitment* -(too busy, too little money, working overseas, lack of adequate planning time, absence of the "budget person," fluid membership, decisions made for others who were not present)
2) *group shortcomings* -(lack of shared vision, in-group/out group planning meetings and inadequate sharing of decisions, unheard voices, unclear guidance, lack of passion for end result, failure to share misgivings, difficulty of maintaining timely electronic communication, mixed signals, high ideals without execution, group schism or "different bents," unrealistic desire for perfection, imbalance between ideas and acts, fallacies regarding capabilities for self-directedness, confusion over what the group "was about," lack of desire to affiliate with the larger organization of which the group would be a "fractile," purpose for the event not entirely clear.
3) *trust factors* -(inability to allow for differences, suspicion of preconceived or even hidden agendas, inability to figure out "what wants to happen here," lack of integrity not in people but in the system --the group, lack of harmony of purpose, not "wanting it enough," unwillingness to trade off deepening relationships for growth in numbers.

- *There was a very high emotional investment in the process of discovering what the group would or would not become.*

  This manifested itself in several ways --from tears, expressions of frustration, expressions of caring and concern, and expressions of faith that this was a powerful learning experience from which all would profit. For several minutes, members were reluctant to acknowledge differences that had surfaced among them.

  1) There was a careful and patently honest desire not to point fingers and assign blame for the failure of the project or even for the feelings of failure about the group itself. Yet the language of many pieces of the dialogue was recriminatory. Those who were most active and who most wanted the event to happen felt betrayed by those who were not so certain this was what "needed to happen." Those who were not the most active felt that their own point of view was misunderstood. As one person said: "I was never fully comfortable that we could pull this off. But I don't want that to be confused with willingness to try to make it happen." The charge of lack of commitment, even though not personally directed, felt like a misreading of motives.
  2) The reaching-out motif was in stark contrast to the reaching-deep-inside motif in many ways. While some had seen the Fall event as a way to bring others into the circle of conversation about the values of being a learning organization, offering a way to share treasured insights outside the group, others felt almost interrupted in their own growing by the intrusion of the event. Another manifestation of these inside/outside orientations was the fact that an outsider had been invited to participate in this soul-searching debriefing without the knowledge or consent of others. His experience in a similar group in another part of the U.S. may have seemed intrusive in light of the intimacy of the conversations underway, and the transcript is testimony to the fact that his comments went largely unnoted and/or unresponded to. Members had met him only once before.
  3) It was pointed out that high group energy was generated over the prospect of making informal presentations within group, sharing "passions" democratically with one another. Twenty-five possibilities were brain-stormed in an earlier meeting in a matter of minutes and individuals assigned themselves responsibility for each of the 25, eager to contribute. In contrast, in-group energy seemed to drain away as soon as planning for the Fall event intervened. One speaker characterized the enthusiasm for staying in group as an emphasis on private "being" over public "doing" and suggested that a learning organization does not always have to "do" or act outside itself in order to justify its existence. There was speculation whether the activist predisposition of independent consultants had prevented discovery of the whole, systemic nature of the group.
  4) Eventually, members of the group began to admit to each other that they had not been good listeners and that often goal-orientation had stood in the way of hearing anything that would jeopardize the goal. It was not that others had "said nothing," but that perhaps group integrity and holism were viewed by some as bound up in, and inseparable

from, the execution of a common project. "Shared vision" is clearly referenced here and seemed to mean that the project was the cornerstone of shared vision.

- *Optimism about the future of the organization was not shared at this crucial feedback session.*
  Curiously, no mention was made in the transcript of either reconvening or disbanding. Turning off the tape recorder as we moved to adjourn, I made a pledge to share the transcript with everyone at the next meeting and suggested that it was only a first milestone among many that we might also record and learn from collectively and individually as we tracked our progress over time. However, there was no next meeting and no interest in reading the transcript was ever expressed. Aside from a few e-mails, not necessarily shared with everyone on the organizational roster, nothing has happened for this group since November 1999. The pro-tem leader resigned because of an upturn in consulting contracts and no one stepped into the gap. Judging from the few e-mails that did come through, everyone seemed ready to move on to other things that they felt would help them attain their goals or execute their personal visions, either virtually on-line, or in other types of affiliations.

On the surface, at least, the absence of further group activity would indicate that the "schism," the split-screen vision with multiple perspectives, was not a problem members wanted to have or were willing to work to resolve or accommodate in any way. It may be that the organizational growth segment of the membership could see no further prospect of arriving at a shared vision, at least as they understood the term. As for the personal growth segment of the membership, while getting together as a subgroup remained and still remains a possibility, no one has taken that initiative.

Interpretation

The evidence strongly suggests that the differences in points of view and in personal aspirations could not be papered over by the real caring that members had developed for one another. Shared vision meant different things to different people and in general seemed to be an idealized concept that never reached full fruition in the organization during its year of existence. There did not appear, in the transcript, to be willingness to engage in further assessment of what was learned about learning organizations or of what might be implied for consulting practice or academic curriculum. Reflecting on earlier sessions, I went back to my notes and found several instances when reflections about process were quickly sidetracked in order to "get on with the business" of organizing. Possibly whatever learning occurred was simply a refresher to remind us of the difficulties and demands of group dynamics. If so, there might have been an easier way to do this to ourselves. Disappointments fell heavily on each of us, at different times, and were manifested in different ways. The main effect of being a voluntary organization was that we could opt out of the organization at will. Members of non-voluntary organizations have less obvious ways of "opting out" if the organization is not listening to or supportive of multiple visions. But a side effect may be that they lose faith in community and fall back on an individualism that is insulated from the workplace.

One of the background elements that also came out of the transcript was that several people referred to the desire to replicate previous experiences in this new context. These earlier experiences seemed to have been especially meaningful for those who mentioned them, and for them the lack of replication was distressing. Several meaningful events had been connected with workshops on visioning and organizational learning. Some had involved large numbers of people, and group size (growing or shrinking) had not emerged as an issue. In other cases, enriching experiences had been designed specifically to capitalize on small group intimacy. On the fringe --which in terms of the transcript has to mean the group members who did not come to the debriefing --one person interviewed confessed to being confused about purpose from the very beginning, but because she respected the other members and valued their insights, she came as often as she could.

While the desire to learn seemed to be universal, the nature of the learning intended by each individual remains murky. An exception to this is the very overt statements made by members who wanted the "oasis" kind of learning --a place and an occasion to reflect on what they were frantically trying to accomplish in their work and private lives. What others intended seemed to be a generous passing of the torch to people who had had no experience with organizations as communities. Both oasis motives and torch-passing motives appear to be grounded in HRD practitioner experience --performing complex tasks, enjoying the refreshment of new ideas, and desiring to share insights with others. But in the organization as it constituted itself, the learning motive and the teaching motive seemed to flow in reverse directions. My own notation as participant observer is that, while the organization often showed great promise of becoming what it said it would be – an organization dedicated to learning –it did not and perhaps could not live up to its promise. That does not necessarily mean that the experience was of no use. It served a purpose we often failed to recognize –the opportunity to try something new and see if we could create something new, in a laboratory sort of way. Because research was not a member-shared activity, I am uncertain of how committed the group was to learning about itself. It might have been helpful to engage others in the research activity, so that action research could become a primary tool everyone would use.

There were many distractions, including two marriages (not to other members of the group), many out-of-town trips, at least four job changes, and the arising of necessary commitments to work-related projects. Attendance needed to be optional. As in all organizations, whoever came and whatever came up sometimes fed and sometimes consumed the energy of individuals. These were very high level, very ambitious people who did not need the group for professional visibility, but who somehow had felt that all their professional relationships could be enhanced by belonging to it. They wanted commitment from each other and agreement to test that out.

Conclusions: Ambiguities and Wash-outs in "Shared Vision"

There is much to be learned in this simple case about the ambiguities in "shared vision" and about the practice of HRD, as well as the need for research on our own practices. The fledgling voluntary organization in this case had every intention of being a dynamic,sharing community. It also had every intention of being a system that was interconnected on many levels. Still, it does not seem to have had a very good sense of its own external or internal ecologies. One person who did exhibit a rich ecological sensitivity remarked (as transcribed):

> If you ask me what I would like in this organization, it would be just a group of people coming together just like we are coming together now –to do whatever we decide to do in this space. It is not to necessarily make it into something bigger or to do events. However if that is what we decide to do and I have the energy and time to help do that because I care about the people in this room, I am willing to do those things even if my choice is 12 people that I just like, sitting and talking and learning from just being. And so, although I saw the dynamic of it, I had a level of acceptance that there was this schism in the group, and I'm thinking…it all happened the way it was supposed to happen, but had that date not been there [the Fall event], I think it would have manifested itself in a different way that we would have allowed people to be and that was okay or allowed people to do and do it at a date that made more sense for the organization.

This is a very different vision from the one that members were accused of not buying into, not "sharing." It is a vision that protects individualism but does not ignore the need for community or the willing sacrifices required of the individual who lives in community. This particular group member had clearly identified herself with the group and had been offering us different versions of this quoted statement for many months, in a variety of open and articulate ways.

There always seems to be something in a group that wants to wash out all the colors as if it were better for all of us to wear the same faded jeans or show up with the same pre-printed banner across our chests. Perhaps this is because we still do not feel our own "connexity," the joining together with others as a moral imperative as well as for our own social purposes (Mulgan, 1997). Soon, says Mulgan, we will have no other choice than to live in connectedness. The issue is whether we will be able to "become a self-organizing society, as opposed to a society made up of separate self-organizing groups" (p.156). Agreeing with his premise, I am disappointed that there is so little to be learned from the case at hand about how to become either one or the other. It is akin to the feeling of a researcher who finds no statistical significance after months of arduous research and analysis. It is not a reason for me or for any other researcher to give up trying to understand why the shared vision was not shared, or perhaps did not even exist.

What we may have forgotten is that continuous co-creation is necessary. A vision does not last, even if it can be shared. And even if it is very colorful, it cannot stand out in the sun too long. Gilley (1998) has said that we fear the state of "not knowing" so much that we "anesthetize" ourselves by going into anti-fear "trances" so tightly sealed that information we need cannot get through (p. 191). That sounds like a realistic explanation for why we may not learn as much or as rapidly as we ought to learn, or why we are so uncomfortable with fluid visions.

There may be a danger that we will so elevate our confidence in "shared vision" that it becomes a collective, monochromatic, let-us-not-dare-to-be-different trance, a stationary trance so organizationally dominant that individual contributions of information and wisdom cannot get through. It is arresting to think about what may happen to the colorful voices of diversity if being entranced with a "totally shared vision" is where we are headed organizationally, and if HRD practitioners and scholars do not continuously critique the new concepts--like shared vision -- that we love and embrace.

Perhaps the purpose of the failed organization was simply not congruent with the real needs of the members. Or perhaps too many of us were trying --not to create something new --but to replicate what we already had found previously. Margaret Wheatley may unwittingly have provided the last and best critique of goes wrong with self-organizing systems like the one this case describes:

> Any time we attempt to impose a solution generated by another system, any time we attempt to transfer a program from one place to another, we are not only wasting our time, we are insulting the system. Why, with its creative, discerning capacities, should it even for a moment accept a solution that is the result of another system's creativity? Why shouldn't it insist on its own insights, its own designs?

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Critical Reflective Working Behaviour: A Survey Research

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In this paper critical reflective working behaviour will be operationalized. Second, the question will be raised which factors have impact on critical reflective working behaviour. The following dimensions of critical reflective working emerge: reflection, vision sharing, challenging group-think, asking for feedback, experimentation and awareness of employability. In a survey amongst 742 respondents these dimensions are validated. Important influencing factors seem to be self-efficacy and participation.

Keywords: Critical Reflective Behaviour at Work, Informal Workplace Learning, Learning Organisation

Good employees could be characterised as critical reflective employees. This conclusion is drawn from an explorative case study research in seven organisations: two banks, three factories (a cheese factory, a packaging factory, and a textile-printing factory), a call centre, and the Post Office (organisation). These case studies were a preliminary investigation for the main research, and were aimed at describing informal on-the-job learning and competence. In the preliminary study respondents representing different levels in the organisation gave answer to the question "What is your definition of a 'good employee?' Many respondents, especially in the packaging factory, the cheese factory and one of the banks, in answering this question stressed aspects having to do with critical reflection (Van Woerkom et al., 2000). They mentioned the importance of thinking critically about the whys and wherefores, asking questions like "Why are things organised like this? Can the work be done more efficiently? Why do I work like this?" Main conclusion of the preliminary study is that critical reflection is both an important form of informal on-the-job learning and an important aspect of competence. The next step now is to make critical reflection operational and to look for factors that influence critical reflection. This paper discusses this next phase in the study. The research questions are: (1) What is critical reflection and how can we measure it? (2) What factors influence critical reflection?

Theoretical Framework

After having identified critical reflection as an important aspect of successful working behaviour, the concept of critical reflection needs to be defined. What exactly is critical reflection and how can we describe critical reflective individuals in work organisations? As Brooks (1999) rightly remarks, because the concept of critical reflection has been developed within the context of theory or practice, rather than research, (Freire, 1972, Mezirow, 1981, Brookfield, 1987 in Brooks, 1999) it has not been developed operationally and no instrument exists to identify individuals capable of critical reflection. Furthermore, scholars don't seem to agree on terminology and definitions. Some speak about critical reflection, while others speak of reflection, critical thinking, double loop learning, model II behaviour, transformative learning etc.

Towards a Unifying Definition?

As said before, many concepts are related to critical reflection, and many definitions exist of what critical reflection is. Let's try to find an operational definition that can help us to measure critical reflective working behaviour. According to Marsick and Watkins (1990) *critical reflection* relates to understanding one's own

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standards, goals, and interests, and learning about backgrounds, assumptions and performance objectives, aimed at improvement. The research of Marsick and Watkins (1990) showed that critical reflection enabled people to challenge norms and to examine the assumptions behind their reasoning and actions. According to Brooks (1999) the ability to ask (critical) questions is fundamental to '*informal critically reflective learning*'. "Making inquiries stands as the only method we have to break us out of the worldviews we take for granted." According to Brooks, critical reflection is useful for improving work practices, addressing moral and ethical dilemmas, and evaluating organizational goals and strategies. A practical means of assessing the value of critical reflection is to measure whether it improves work practices. The concept of *double-loop learning* that Argyris and Schön (1996) distinguished is closely related to critical reflection. Double-loop learning enables workers to identify, question and change the assumptions underlying workplace organisation and patterns of interaction. Workers publicly challenge workplace assumptions and learn to change underlying values. Furthermore, Argyris & Schön describe behaviour related to critical reflection and necessary for double loop learning (so called model II behaviour). This can be characterised by asking (critical) questions, expressing one's (sincere) opinion and inviting others to give feedback or to confront visions, perspective taking and experimenting with new behaviour and work methods. Non-defensive behaviour is also part of model II behaviour. Brookfield (1987) defined the process of *critical thinking* as the process by which we detect and analyse the assumptions that underlie the actions, decisions and judgements in our lives. Essentially it has three stages: firstly, becoming aware that these assumptions exist, secondly, making them explicit, and thirdly, assessing their accuracy and validity. Bolhuis en Simons (1999) define *critical learning* as learning that is consciously initiated by the learner out of dissatisfaction with earlier learning. What has been learned before (frame of reference) has to be unlearned to make place for new knowledge, skills and attitudes. Critical learning can be seen as breaking down and building up.

This small sample proofs different characteristics of definitions and functions. Questioning assumptions seems to be a central aspect of most of the definitions but is not being made concrete in an organisational context. Assessing the usefulness for the purpose of this research, a few problems emerge: Most of these definitions are indeed not very operational, most of these definitions characterise a process instead of a visible behaviour and most of these definitions are rather focused on learning or thinking than on working in an organisation.

The *model II behaviour* (Argyris & Schön, 1996) seems to comply most with the purpose of our research. For this research it is important to make critical reflection operational in terms of observable examples of critically reflective behaviour in work organisations. Therefore the following definition of critical reflective working behaviour is being made: *Critical reflective working behaviour is a set of connected, individual activities, aimed at analysing, optimising or innovating work practices on individual, team, or organisational level.*

After finding the theoretical notions on critical reflection, again an analysis of the case-study material is being made, aimed at looking for identifiable, concrete, practical examples of these theories. The combination of literature review and the analysis of the case-studies (these were carried out in a parallel process, returning from one to the other) leads to the operationalisation of *critical reflective working behaviour* in nine dimensions, which are being chosen because they are recognisable both in theory and in practice. These dimensions will be discussed below, with examples of theory and the case-study material.

Reflection on Oneself in Relation to the Job. All fore mentioned authors have an element of reflection in their definition. Reflection is a mental activity, aimed at examining one's own behaviour in a certain situation (Van Bolhuis-Poortvliet & Snoek, 1996). The importance of reflection was demonstrated by statements from respondents like "reflecting on the whys and wherefores" "Why are things organised like this? Can the work be done more efficiently? Why do I work like this?" "Employees should be able to step back occasionally from their daily routine and devote more attention to self- and time management".

Learning from Mistakes. Reflection leads to consciousness of undesirable matters (for example work routines, communication deficiencies, mistakes, problems, lack of motivation). In stead of denying these undesired matters, they are interpreted as something positive, namely as source for improvement or learning. As Senge (1990) states "failure is, simply, a shortfall, evidence of the gap between vision and current reality. Failure is an opportunity for learning about inaccurate pictures of current reality, about strategies that didn't work as expected, about the clarity of the vision. Failures are not about our unworthiness or powerlessness". Many respondents from the case-study's stressed the importance of 'not being afraid to make mistakes or showing one's vulnerability. When managers were asked for their definition of 'the learning organisation' they often mention the importance of learning from mistakes.

Vision Sharing. Vision sharing is one of the observable activities caused by reflection. One expresses the result of reflection by expressing ones vision, asking (critical) questions or suggesting improvements. Making your vision publicly is one of the two central aspects of the model II behaviour (Argyris & Schön, 1996). The respondents in the case-studies stressed the importance of contributing ideas and discussing this with others. "Good critical workers are not just being negative but do suggestions for a different way of working".

Challenging Group-think. However critical thinking can not always be perceived as being positive. In Brooks case study of a "Baby Bell" telephone company, two images were used by many individuals to describe critically reflective participants. "The first was that they "can see the emperor is wearing no clothes", the second is that they "are troublemakers". Although being called a "troublemaker" does not appear to be regarded as bad, informal critical reflection is not always met with a welcoming embrace. It can be rejected, leaving an employee isolated." Brookfield defines critical thinkers as people who challenge group-think, that is, ideas that a group has accepted as sacrosanct. This also means that critical thinkers are alert to premature ultimates, invocations to higher values. Some respondents in the case-studies mentioned 'challenging group-think'. "The guy is a trouble-maker, but he sharpens us."

Asking for Feedback. The essence of model II behaviour of Argyris and Schön is the balance between advocating and inviting others for feedback and vision-sharing. Social dimension of critical reflective working behaviour. The importance of this dimension is demonstrated by statements of respondents referring to a social dimension of critical reflective working behaviour. On the one hand is social interaction an important source of information for reflection. On the other hand is "being critical on your own" often not perceived as constructive and effective. Employees operate in a social context and will have to get support for their ideas to make things happen.

Experimentation. Schön distinguishes between reflection-on-action en reflection-in-action. Reflection-in-action is a kind of experimenting. "When someone reflects in action he becomes a researcher in the practice context. He is not dependent on the categories of established theory and technique but constructs a new theory of the unique case." Experimenting is often mentioned as the last step in a reflection cycle (for example Dewey (1933), Korthagen (1985), Van Bolhuis-Poortvliet & Snoek (1997). Brookfield (1987) perceives "exploring and imagening alternatives" as one of the two central activities of critical thinking. (The first is identifying en challenging assumptions). Although the term experimentation was not mentioned by respondents (it has a connotation of experimenting without any obligations) what they did mention was the importance of putting ideas into practice. "Good teams don't need a suggestion box; they immediately turn ideas into improvements".

Sharing Knowledge. Sharing knowledge can be seen as a dimension of non-defensive behaviour (Argyris & Schön, 1996). Sharing knowledge means that people are not only motivated by protecting their own position but want to be part of something that is bigger than themselves (Senge, 1990). It also can be seen as a social aspect of critical reflection in the context of an organisation. As long as knowledge, insights, and visions are not being shared, the organisation won't benefit from it, and the individual will be frustrated in his attempts to change work practices. and Senge states that people don't only act out of self-interest, but although critical reflection seems to be an individual activity, the effect of it is not to be defined apart from the social context. The result of critical reflection (insights, visions, suggestions for improvements) can not be made effective if this is not shared with others. "Good workers like to share knowledge with their colleagues, without being afraid for competition." A training manager at a bank noticed that competitiveness amongst colleagues has a negative effect on knowledge sharing. More and more attention is paid to this problem.

Awareness of employability. Awareness of employability can be seen as a logical consequence of reflection. As a result of reflection about oneself in relation to work, people become aware of their motives and the extent to which work satisfies their motives. If necessary one will orient on other possibilities. This quality was stressed by many respondents. The case study material showed that both organisations and the people who work in them do benefit from employable employees who ask themselves if they really want to follow the changes in their job or if they would not prefer to look for another job. The ability to take responsibility for one's own career if one does not like the changes that are taking place in the job, and to continue this career with another employer is not only in the interests of the employee but also in those of the employer, if, for example, jobs change or disappear and employees cannot be dismissed because they are protected by law.

Factors Influencing Critical Reflective Working Behaviour

The second research question is related to factors having impact on critical reflective working behaviour. In this paragraph an analysis is made of two clusters of factors: individual factors and factors related to work and organisation.

Individual Factors

Motivation. The theory of self-determination (Deci and Ryan, 1985, Deci and Flaste, 1995) expects three factors in workplace conditions to have a distinct impact on motivation for working and learning, namely experience of social integration, experience of autonomy and experience of competence. People feel socially integrated if they believe that their work is acknowledged by their colleagues and superiors and if they feel integrated in the community of work. People experience autonomy when they have the feeling that they have the scope to act independently and to carry out their work according to their own planning and insights. People feel competent if they believe that they can carry out their work successfully and effectively. Another motivational component is the balance between insecurity and challenge in a situation (Maddi, 1970). An hypothesis in this research is that these four motivational components all have a positive effect on critical reflective working behaviour. However, the effect of social integration is still ambiguous. On the one hand feeling socially integrated will make it easier to be open, vulnerable and critical. On the other hand social integration can make it more difficult to resist social pressure and to come up with new ideas, ask (critical) questions etc.

Self-efficacy. Self-efficay is the belief in one's capabilities to organise and execute the sources of action required to manage prospective situations (Bandura, 1986). Self-efficacy also depends on self-evaluation and how people view their capability. For they may perceive an ability needed for some aspects of their current or anticipated future work either as an acquirable skill or as an inherent, possibly inherited aptitude. The former is highly conducive to skills development as people judge themselves in terms of performance improvement and regard errors a natural part of the learning process. The latter constrains learning, especially when people compare themselves unfavourably with others. Research from Van der Klink (1999) Gielen (1995), Gist, Stevens & Bavetta (1991), Hastings, Sheckley & Nichols (1995), Matieu, Martineau & Tannenbaum (1993) show the significance of self-efficacy for motivation for training and commitment with organisation. An hypothesis in this research is that self-efficacy has a positive effect on the dimensions of critical reflective working behaviour because they require courage (daring to be vulnerable, to be open, to resist social pressure). People will have this courage if they have high efficacy. Eraut c.s. (1999) point out that confidence was frequently cited by respondents as both the major outcome of a significant learning experience in the workplace and a critical determinant of good performance at work. Sometimes it derived from the achievement of a good result or the solution of a problem, sometimes from the recognition that others were no less fallible than themselves. Confidence encouraged more ambitious goal-setting and more risk-taking, both leading to further learning. Usually it was fairly specific, relating to ability to execute a task or successfully perform a role, what Bandura calls self-efficacy.

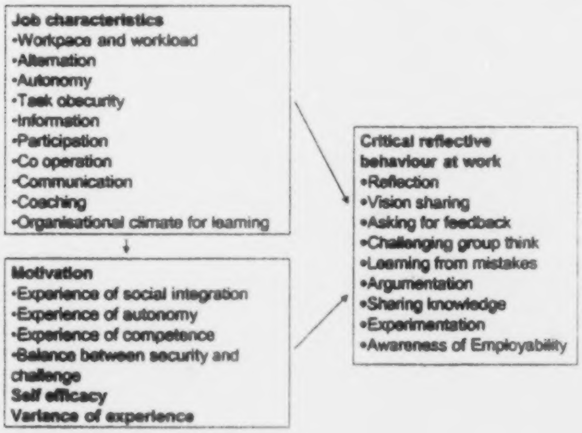
Experience Concentration. Experience concentration refers to the diversity of experience in ones career (Thijssen, 1996). In general, with the increasing of age, the multitude of experience increases and the diversity of experience decreases. The hypothesis is, that experience concentration has a negative effect on critical reflective working behaviour. The more experience one has in one context, the less one will put up for debate this particular context.

Job and Organisational Characteristics

Because critical reflective working behaviour is a type of informal on-the-job learning, we sought for theories about the effect that job characteristics have on on-the-job learning. Karasek's job demand control model is a model in which stress as well as learning are considered as dependent variables and task characteristics as independent variables (Karasek and Theorell, 1990). This model supposes a combination of high task demands and much control to lead to learning and to motivation for competence development. Task demands can be both quantitatively (workpace and workload) and qualitatively (for example alternation). High task demands are necessary for learning. To prevent stress, one needs control. Control (or decision latitude) is defined as the potential control of an employee over his tasks and his behaviour/performance during his working day. Control can refer to autonomy and participation. In a later version of this model, social support was added to this model (Kwakman, 1999). Another theory is that of the learning potential of jobs (Onstenk, 1997) based on the work of Baitsch and Frei (1980). The learning potential refers to the likelihood of learning processes occurring in a particular job situation. This depends on a specific combination of worker characteristics and job characteristics. Learning opportunities are determined by job characteristics (like breadth and variety of tasks, the degree of innovation and problem solving and the degree of control and autonomy), the information environment and the social environment (task group, co operation, guidance and feedback by supervisors and colleagues.

From these theories, the following job characteristics were selected because of their supposed impact on critical reflective working behaviour: workpace and workload, alternation, autonomy, task obscurity, information, participation in innovation and decision-making, co operation, communication (top down), coaching, and organisational learning climate. The hypothesis is that workpace and workload and task obscurity will have a negative effect, while the remaining variables will have a positive effect on critical reflective working behaviour.

Figure 1: Conceptual Model of Factors Influencing Critical Reflective Behaviour at Work


Job characteristics
•Workpace and workload
•Alternation
•Autonomy
•Task obscurity
•Information
•Participation
•Co operation
•Communication
•Coaching
•Organisational climate for learning
Motivation
•Experience of social integration
•Experience of autonomy
•Experience of competence
•Balance between security and challenge
Self efficacy
Variance of experience
Critical reflective behaviour at work
•Reflection
•Vision sharing
•Asking for feedback
•Challenging group think
•Learning from mistakes
•Argumentation
•Sharing knowledge
•Experimentation
•Awareness of Employability

Methodology

Based upon the conceptual model a survey research is carried out in order to validate the nine variables of critical reflective working behaviour and the various predictor variables and to examine the relationships as specified in the conceptual model. The variables are being operationalised in a questionnaire for 'self-report' with on average six to eight items per variable. The items referring to workplace-conditions can be scored on a four-point scale (1 = hardly ever, 2 = sometimes, 3 = often, 4 = (almost) always). The items referring to critical reflective working behaviour can be scored on a six-point scale which only describes the extremes (1= totally wrong….6 = totally right).

It is evident that measuring a concept such as critical reflective working behaviour in a survey is a complex matter, and can only lead to a faint glimpse of the 'truth'. However, after a first phase of research that was qualitative, a need for a more quantitative foundation of concepts and relationships was felt. Of course there are many problems involved with a questionnaire for self-report. Firstly, what a person says, is often not more than an indication of what he or she does. Secondly, persons are aware of the fact that the researcher is looking for something and thirdly, questions can evoke something that otherwise would have remained latently (van der Hoogstraten, c.s. 1985). The following attempts are taken to (partly) overcome these problems. Firstly, items are formulated as much as possible in terms of concrete behaviour in stead of feelings or thoughts. Secondly, a pilot of the questionnaire is tested on 20 people in various jobs. And thirdly, twelve respondents (scoring low, average and high on the instrument) are interviewed afterwards on the same indicators as in the questionnaire to check the consistency of their answers (results not available yet).

Participants are obtained from a data bank with school leavers of secondary and tertiary agriculture education and selected on the following criteria: Having a payed job, are working in an organisation of at least 20 employees and in a job which requires working together with colleagues.

Although the respondents have the same educational background, their work experience varies largely (production, financial services, education and consultancy, etc.). The questionnaires were sent in June 2000.

Reminders were sent after two weeks. From the 1670 questionnaires that were sent, 742 valid questionnaires were returned (respons rate of 46%). 67,8% of these respondents are men, 32,2% are women. The average age is 29,8 years old (SD=4,6). One-third of the respondents has a diploma of a secondary vocational education, the rest has a diploma of tertiairy vocational education.

In order to answer the first research question (Is it possible to measure critically reflection?) factor and reliability analysis were carried out. In order to answer the second research question (What influences critical reflective working behaviour?) multiple regression analyses were carried out.

Results and Findings

Reliability of the Instrument

To determine whether the nine dimensions of critical reflective working behaviour really exist, a factor analysis (with principal components method and vari-max rotation) with nine factors to be extracted is carried out. This leads to the conclusion that the items belonging to reflection, reasoning and learning from mistakes spread among the other concepts. For the sub-scales reflection and learning from mistakes, this can be explained by their 'basic' character. These sub scales are in a way part of all the other sub-scales. For the sub scale argumentation this can be explained by the low reliability of the initial scale. Only after deleting three items, the scale reliability was acceptable (α=.66). However, when in a next factor analysis items belonging to these three sub scales were removed, the rest of the six concepts come to the fore unambiguously in six factors with Eigen-values higher than 1. After deletion of items loading less then .35 on any of the factors, these six factors explain 48,2% of the variance. Although this is not much, this solution leads to considerable data reduction. After carrying out reliability analysis deleting some items to improve the scale consistency , nine variables were being constructed by computing mean scores.

In order to find out if the sub-scales indeed load on one underlying construct, namely critical reflective working behaviour, again a factor-analysis (with principal components method and no rotation) is carried out on the nine variables without indicating a number of factors to be extracted. This leads to a two factor solution, with Eigen-values higher than 1. It turns out that learning from mistakes, argumentation and sharing knowledge belong to another factor than the other sub scales. Because the most and the most important scales belong to the first factor, it is decided to eliminate the three sub scales that load on factor 2. For the variables loading on the first factor a factor score is being computed which represents the concept of critical reflective working behaviour as a whole. This leads to the scales as described in Table 1. As we can see reliability of both the construct critical reflective working behaviour, and the underlying dimensions are fairly reasonable to high. Because of limited space, the reliabilities for the predictor variables are not being presented. The reliabilities of these variables varied between .70 and .91.

Table 1. Descriptive Statistics For Sub Scales

	M	Range	SD	Cronbach's alpha	Number of items
Critical reflective working behaviour	-.003	-3.28-2.92	1.00	.76	6
Reflecting	4,35	2,00-6,00	,68	.68	8
Critical vision sharing	4,11	1,29-6,00	,87	.83	7
Asking for feedback	3,98	1,60-6,00	,77	.83	10
Challenging group-think	4,40	1,20-6,00	,88	.74	5
Awareness of employability	3,97	1,00-6,00	1,25	.80	4
Experimenting	3,83	1,17-6,00	,84	.75	6

Effects on Critical Reflective Working Behaviour

A stepwise regression was used to discern the relationship between (the sub scales of) critical reflective working behaviour and workplace and organisational characteristics and individual characteristics. The results are shown in Table 2 (only significant effects are shown). A large part of the variance on the factor score of critical reflective working behaviour is explained by the independent variables (51%). The most important predictors are self-efficacy and participation. Also the explained percentage of variance in the sub scales critical vision sharing, challenging group-think and asking for feedback is fairly high (respectively 41%, 38% and 30%). The most important predictors for critical vision sharing seem to be self-efficacy, participation and function level. The most important predictor for 'challenging group-think ' is self-efficacy. The most important predictors for asking for feedback seem to be self-efficacy and coaching. A relatively low percentage of the variance in the sub scales awareness of employability, experimentation and reflection is explained by the independent variables (respectively

14%, 17% and 19%). Self efficacy and age seem to be the most important predictors for awareness of employability. Most important predictors for experimentation are self-efficacy and participation. For reflection the most important predictor is self-efficacy.

Table 2. Regression Analysis, the Effect of Workplace and Organisational Characteristics and Individual Characteristics on the Sub Scales of 'Critical Reflective Working Behaviour'.

	Critical vision sharing	Asking for Feedback	Awareness Of employab.	Challen-ging group-think	Experiment	Reflecting	Factor score CRWB
Workplace and organisational Features							
Workpace and workload	.09						
Variety						.14	
Participation	.35	.12		.13	.22		.20
Coaching		.23				.08	.09
Organisational learning climate	-.08	.13				.09	
Function level	.17						
Number of employees		.12	.08				.12
Individual features							
Difficulty with change					-.11		
Self-efficacy	.43	.32	.23	.55	.26	.28	.56
Function experience			-.11			-.11	
Sex (man =1 woman=0)	.11		-.14				.07
Experience concentration			-.11			-.10	-.08
Age			-.21	.10			
Explained variance (R-square)	*.41*	*.30*	*.14*	*.38*	*.17*	*.19*	*.51*

Again a stepwise regression is used to discern the impact of workplace and organisational characteristics on individual characteristics. Because of the importance of self-efficacy for critical reflective working behaviour, the most interesting thing is to discern which factors have impact on self-efficacy. It turns out that only a small percentage of the variance in self-efficacy can be explained by the predictor variables (14%). The most important predictor for self-efficacy seems to be participation.

Conclusions and Recommendations

Critical reflective working behaviour seems to be a construct consisting of six dimensions, namely reflection on oneself in relation to the job, critical vision sharing, challenging group-think, asking for feedback, experimentation and awareness of employability. Both the sub-dimensions and the construct as a whole seem to be reliable concepts. With regards to the effects of the predictor variables the most striking result seems to be the effect of self-efficacy on all the different sub-scales of critical reflective working behaviour. This can be explained by the fact that all the sub scales of critical reflective working behaviour imply a certain way of risk taking behaviour. One has to have courage to withstand social pressure and be critical, to take a vulnerable position and ask for feedback, to take a close look at ones performance and ones future career, to experiment in stead of walk the beaten track. People who feel confident will sooner be prepared to take such 'risks'. Second important result seems that that workplace and organisation characteristics (except for participation in policy and decision making) are not very significant for critical reflective working behaviour. Workplace characteristics that were being selected based upon the theories about the learning potential of jobs from Karasek (1990), Onstenk (1997) and Baitsch and Frei (1980) probably refer more to forms of single-loop learning than to forms of double loop learning. This means that if critical reflective working behaviour indeed is an indicator for double loop learning, it is quite hard for organisations to stimulate it. If organisations do want to stimulate double-loop learning this has to be achieved via stimulating employees self-efficacy. The problem with self-efficacy however is that this is both an outcome of a significant learning experience in the workplace and a critical determinant of good performance at work (Eraut, 1999). A way to break this vicious circle could be to gradually build up the uncertainty employees have to deal with in their job. In other words, people should start to operate in a safe environment where they can develop their competence, and develop their own vision on the job. After this they should be challenged to push back frontiers and be invited to think about policy and decision making and innovation in the organisation. The fact that the scale 'self-efficacy' is so much more significant than 'experience of competence' seems to indicate that self-confidence indeed is fairly specific and related to the ability to perform a specific task. In a way one could also argue that an experience of incompetence (conscious incompetence) though combined with self-confidence is the best catalyst for learning. As Lee (2000) states in her discussion of the 'learning ladder' "It is very easy to become so immured to the struggle and the need for achievement that one becomes unconsciously competent at 'doing the job'. So much that one no longer takes time to be 'conscious' or aware of why the job is being done in the first place". This can be illustrated by an interview with a software engineer who scored high on the dimensions of critical reflective working behaviour and who stated in a confident way that he was insecure. "Being insecure for me is part of the job, you make many choices under time pressure when you are still not sure about the best solution. I know some colleagues who are never insecure and who sometimes fervently advocate a solution while I can think of ten reasons why to choose for another option."

How This Research Contributes to New Knowledge in HRD

As the transfer of training is a very complex matter, HRD should focus more on how to make use of the informal learning experiences that derive from everyday working life, instead of on formal training. True organisational (double loop) learning can only happen when management and employees work in a critical reflective way. As Franz (1999) states, you can people force to work, but you can not force people to work well. In order to work well, people must be able to (collectively) put up for discussion their day to day work practices. It seems that critical reflection brings together the interests of both employers and employees. The benefits of critical reflection to the employee lie in the critical reflection itself, which gives him a feeling of self-determination, growing personal mastery and which will help him in career development. For the employer, however, it is the economic value of critical reflection that is of importance. Critical reflection is essential for continuous improvement, quality management and innovation - all matters that are vital in order to survive in a competitive economy.

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Construction of an Action-Research Project about an Organizational Change Process in a Bureaucratic Organization.

Hilda Martens
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This innovative session is based upon two key moments in our action research project in the Belgian Tax Ministry. We will take participants through an action learning case study. For each step we will give the necessary background information and then pose relevant questions for discussion. We will share knowledge and discuss ideas about decision-making and the implications they have in reality and for the session in particular.

Keywords: Organizational Commitment, Knowledge transfer, Change in Bureaucracy

Change processes in large bureaucratic organizations typically start off with structural changes. But when the problem of developing new structures is solved on paper, a very important and difficult step still needs to be taken: new structures and systems in themselves do not give rise to organizational change, they need to be put into practice! Only if the behavior of the employees changes can the new objectives be reached.

Session Description

The purpose of this session is to take the participants through some of the steps of our action research project which ran from 1992 until 2000. This action learning process is embedded in a social constructionist framework. We start off with presenting some background information that the researchers obtained at the beginning of the project. Provided with all the information they need , we then ask the participants, sitting at tables in small groups of three to five people, to brainstorm about the next step to be taken, and why. We are also interested in the participants' expectations: what do they hope to achieve with the action they propose? What is the likely outcome of their proposed actions? After discussing the various ideas put forward by the different groups, we inform our audience of what we do in reality, why we do so and what the consequences of our actions are. Then, we tell the participants about the continuation of our research project, until we arrive at another key moment at which an important decision has to be made. We follow exactly the same procedure.

But before all this, we start our innovative session with explaining the purpose and the format. We then ask the audience what their goals are and what their guiding principles are in order to obtain an interesting learning experience. It's important to build a shared meaning about this.

Presenter : Hilda Martens, Limburg University Center, Belgium

Purpose

The purpose of this innovative session is to experience the key findings and principles of our action research project and maybe to add or create new ideas. The participants' involvement is very important in our action research in the Belgian Tax Ministry. By discussing the proceedings of this project with our audience, we want to come to a shared opinion or agreement on what our plan of action should look like, which various steps need to be taken, why these steps are indispensable and how they can be put into practice. We carefully listen to the alternatives proposed by the participants and then try to reach an agreement. We think it's important to do this over and over again because our goal is to work from a social constructionist framework during the conference as well as in reality and to compare both events.

Goals

Our goals for this innovative session (and at the same time our findings from our action research) are:

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1. Clearly proposing and seeking approval for a general long-term value or principle of co-operation. We look for a stepping stone, a common value or goal of real interest to all parties. We seek a win-win relationship. This innovative session can be a significant learning experience, both for the audience and researcher.

2. Reaching joint agreement on the course to be followed and on the operational procedure during each step. The joint consideration and exploration of several possibilities during each step of the co-operation, with reference to as many advantages and disadvantages of each alternative as possible creates a feeling of freedom to choose within the limits of the general long-term value or principle of co-operation, for instance the principles of co-operation and mutual learning subscribed by both parties. Step by step we need to consider, in the light of the common goal, what might constitute a meaningful next step. This next step won't be taken up in the plan of action until all participants consider it meaningful. The end result of each step is jointly evaluated, and information about the continuation of the project the way it was carried out in reality, is provided.

3. Openness in communication. We encourage participants to say what they really think about something, even if they hesitate to do so, and urge them to be frank and forthright. We continuously test how direct we can be with each other, and try to be so to the greatest possible extent. Being open and direct, then, continuously creates opportunities for questions and discussion; participants dare to state uncertain opinions, sound out their own and the other's statements. 'Striving towards' model 2-behaviour (Argyris, 1990).

4. Reframing information, creating openings to view things from different angles. We aim to reach a situation in which the researcher and the audience are confronted with different viewpoints; a situation in which we experience that there is no such thing as THE ONE objective reality but, rather, that each individual has the freedom to express certain 'subjective' perceptions that he/she finds 'right' or 'logical' from his/her own experience.

5. Gradual recognition of each other as valid conversation partners. From our social constructionist position we always make sure to jointly make decisions, always endeavoring to make our clients, our audience co-owners of the research.

Content of Session

We first give an overview of the entire project and then we work out two key moments, (a) the contracting phase and (b) the design and execution of the supportive training process in three rounds during the organizational change phase.

A major reorganization is currently going on in the Belgian tax ministry with its 28,000 employees. Until 1995, each Belgian organization or company was controlled twice by the Belgian tax ministry; once for income revenue or direct taxes, and once for VAT (value-added tax). This reorganization and the creation of a new tax administration, the *Administratie van de Ondernemings- en Inkomenfiscaliteit* (AIOF, the Administration of Corporate Taxes and Incomes) resolves this inconvenience for the taxpayer. Its ultimate goals are, on the one hand, a more efficient tax supervision system, resulting from the combination of resources and information available from the two former departments and, on the other hand, a more quality and customer-driven public service with one central customer contact point.

Overview of the Whole Project

In outline, the project consists of a number of phases. The aim was a more effective and efficient running of the different parts of the organization.

The research starts in the contracting phase in an atmosphere of uninvited (research-) guests. This is the first key moment that we will be working on in this innovative session. This atmosphere of uninvited guests changes gradually into joint recognition between the researchers and top civil servants from the Ministry of Finance as the point of departure for the joint operation: a research project of use to the top management and the organization. To enable co-operation between the researchers and clients, the project was initiated by a joint steering committee of top officials and researchers. This steering committee set the course and objectives throughout the project. The steering committee has received interim reports, and researchers and/or officials have approached it with proposals for further steps. The steering committee decides in each phase which proposals are to be executed and what successive actions they involve. It also plans the timetable.

During the exploratory phase, the steering committee decides to investigate how the employees perceive the effectiveness and efficiency of their departments. The employees are also asked about their ideal or desired organizational characteristics. Research during this phase therefore focuses on the 'shop floor' of the organization. Among the problems cited, management and the allocation of work was seen to be too exclusively bound by bureaucratic habit, rules and culture; the actual performance of the employee is not the central point in selection, assessment, training and promotion policy; too little attention is paid to internal and external client-orientation; attempts at change clutch too exclusively at structural change that produces insufficient effects because of a lack of fit with the other organizational variables. In addition to this research, a major restructuring plan with a pilot project has been set up inside the organization.

In the in-depth phase, we investigate whether the problems, identified during the exploratory phase, are addressed and resolved in the pilot project and in the restructuring plan. A benchmarking is carried out in large scale bureaucratic organizations such as banks and insurance companies, and in the Dutch national tax administration. The results of this benchmarking are then discussed in the steering committee.

The advisory phase consists in the first place of a three day workshop with the members of the restructuring group and the researchers, with joint investigation into how the restructuring plan might be added to and possibly improved using the research information gathered to that point. Besides this a new task force 'support and internal control' has been set up with the goal of improving communication and control possibilities between control management and external departments and we worked together with this task force. We also scan the organization for groups trying to bring about change, mapping out common ground and points of departure. For instance, various task forces are created to work out the restructuring plan. We then present the useful conclusions of the exploratory and in-depth phases for discussion with officials of the various task forces. We work with the task force personnel and organization to put together a management training program for the post-restructuring executive staff of the new departments. We also start management courses for existing executive staff. Meanwhile, we proceed with our co-operation with the top tax officials on the description of the function profile of these executives and on the basic guidelines for the new departments (including descriptions of organization and tasks).

The implementation of the restructuring was put off from spring 1996 till the fall of 1997 as the different taskforces made progress; the tension among different departments and services increased and insuperable difficulties arose. When the decision was made to start again' we were called upon to work on the people's side of the organizational change and to help plan and realize the behavioral changes of member at all levels of the organization. This is quite often the bottleneck in organizational change processes. Without the necessary behavioral change among the employees, the change of style, attitude, skills, knowledge and mind-sets, the change is a blind alley.

The organizational change phase. This is the second key moment of this innovative session. How can the behavioral changes among members at all levels of the organization, the execution of the restructuring plans and their evaluation be supported??. The top management of the new Administration of Corporate Taxes and Incomes, the client organization, asked us, the external researcher and change agent, for a proposal for the support and training of their staff in the implementation of the reorganization. They asked us to work in co-operation with the internal training department of the tax ministry, the National School of Finance. We acted as a link between the client and this internal training service and, in a spirit of co-operation, set up the course and objectives throughout the project and evaluated and corrected the process continuously.

First Key Moment: The Contracting Phase

We concentrate on an in-depth illustration of how we worked from a social constructionist perspective in the contracting phase of the organizational development project within the Belgian Tax Ministry. In this contracting phase, we experienced a conversion from being uninvited guests towards a joint mapping-out of problem areas for research and to the feeling that 'there is something in it for me' for both parties. Looking back on our experiences, we can identify a number of process characteristics that have led to this change of mind and to the commitment of these clients.

We experienced a distinct difference between contracting at the top of the Ministry of Finance and that in Direct Taxation. In the first contracting phase at the top of the Ministry, we set out as uninvited (research) guests, offered to, or rather thrust upon, our client. Although representatives of the Ministry were involved in the decision-making phase of this research project, the top management would appear not to have been concretely informed. They expressed their perception as: 'this unsolicited research was forced on us; working on it will cost us time; allowing outsiders to research our organization can be dangerous and we already know our problems but do not have enough power to bring about change.' In these first contacts, we acted from our constructionist view that only shared 'meaning' is a starting point for joint operations, and from our own desire to gain admission and access to the field of research. Work cannot proceed unless the desire and the will for combined effort exist on both sides. We tried to elicit this desire and will to joint effort in the top of the Ministry of Finance. We did this by taking quite explicit account of the objections and conditions, jointly probing the organization for a subject we 'both' would find worthwhile studying and implementing, and by proposing a research structure in which we, as researchers, visibly share control and authority with the officials.

In the contracting with the Administration of Direct Taxation, the mood is different. The newly appointed Director-General is ready for co-operation and openness. He stresses he is eager to make use of a chance, serendipitous research opportunity from a university. Adopting a co-designed research approach, a partnership gradually forms, with shared concerns and responsibilities.

In this contracting phase, we may therefore speak of a conversion from being uninvited guests towards a joint mapping-out of problem areas for research and to the feeling that 'there is something in it for me' for both parties. At a later stage of our research, we asked various parties why they had participated in the first phase of our research. Their responses all pointed towards the process characteristics described above under ' goals '.

Second Key Moment: The Design and Execution of the Training Process to Support the Organizational Change Phase

When the decision was made to start again with the restructuration in 1997, we were called upon to work on the people's side of the organizational change and to help plan and realize the behavioral changes of member at all different levels of the organization. In line with our action research framework, based upon a social constructionist approach, we wanted to work with each group in collective learning sessions. So leaders and followers find themselves at the same (starting) level: they acquire new ways of thinking together about how they can optimally fulfill the new requirements of the work; of deciding together what to do in certain conditions, or elaborating the criteria to take action and so on.

So, we designed the training in three rounds: first the Preparatory and Support Team (N = 12) in the presence and with the support of the top management team (September 1997); secondly, the directors of the inspection centers (N = 100) in the presence and with the support of the Preparatory and Support Team members (January to June 1998) and thirdly the team leaders[ii] (N= 260, from October 1998 to June 1999).

At each training session both bosses (or superiors) and subordinates (or employees) were represented. In order to bring them closer together and to create an open atmosphere, we started off with an honest discussion about mission and vision, aims and purposes, and possible courses of action. In this discussion, the external trainer-researcher took up the role of 'moderator': she encouraged subordinates to clearly state their own opinions and convey their true thoughts, even in the presence of their superiors. Both subordinates and superiors were given the feeling that it was okay for them to express their hopes and doubts, their frustrations and to explain why they felt a certain resistance to change. In doing so, the subordinates became co-owners of the new vision and strategy: they too are involved in the changes that have to be brought about; superiors and employees *together* acquired the insight that change *is* possible and that it's up to them to make this opportunity succeed or not. But exchanging ideas wasn't all that had to be done! In each session we also 'trained the trainer', i.e. we prepared the participants to become trainers themselves, as they have to be able to teach these sessions or courses to their own subordinates later on. By organizing the sessions in this way, we tried to set up collective instead of individual learning processes and we linked top management with subordinates in order to reach a common goal.

We evaluated each training round at individual and group level, and for the third training round for team leaders we also carried out follow-up research. Team leaders were asked to note one to a maximum of three work point(s). After 8 weeks, they would receive their card of work point(s) and a list of questions to fill in and return to us in the pre-paid return envelope.

The first training for the first level, the Preparatory and Support Team started in September 1997, just before the start of the reorganization with a two-day seminar. This residential two-day course started with a clear statement of mutual expectations between the five top managers and the 12-person support team. It was preceded by a planning and appointments day. The purpose of the course was to acquire understanding and skills in the typical character of this support-giving and advisory function and to work on perceptions, skills and attitudes more likely to encourage a more result-driven, supportive and learning management style. It also turned around styles of relations between officials and their staff, between employees, and between executive staff and their superiors. These perceptions and skills help to set up the new structures and work systems aimed towards the inspection centers' objective: more, thorough and polyvalent tax inspections. Indeed, new structures and systems in themselves do not give rise to organizational change. Only if the behavior of the employee's changes can the new objectives be reached.

It emerged from the oral and written evaluation directly after the course that the Preparatory and Support Team members gained a better understanding of expectations with regard to the new job, learned and refreshed new and old principles of management. They appreciated the practical training and tools in problem solving, conflict handling and meeting skills. The expressed wishes for further training mainly occupied the relational plane, as to how to change the hierarchical relation into another, more two-sided or mutually questioning and testing relation.

For the second level, second round of training for inspection center management the external trainer, together with two or three members of the Preparatory and Support Team then gave a four-day training course. The groups of about twelve to fifteen people were made up by inviting the two or three directors of an inspection center, with three to five inspection centers in the same region. The four days were spread between November 1997 and June 1998. Each of the days were announced with a different topic. Beside the subject of the day, there was also ample time to discuss problems in the start-up of their own inspection center and own functioning. In this way, we mixed a structured training with free space to discuss the current problems. The objectives of the training dealt with content as well as style and culture. Thus: bringing out the own expectations and the function requirements of the managerial function in the inspection centers (2 days), learning to preside meetings (1 day) and learning to hold planning and evaluation talks (1 day) as the objective of learning how to handle the new, more open, quality- and result-driven style. The trainer noted that these middle managers were not used to thinking in terms of process. Both in their preparation of imparting information to their employees and in their preparation of meetings and planning discussions, there was a marked preoccupation with content. The training therefore laid heavy emphasis on preparation on the process side (how to approach talks and meetings in order to be effective as well as motivating from the employees' point of view) alongside the preparation of content.

The oral and written evaluations directly after the course showed that it was very new that the Preparatory and Support Team, their bosses, were setting up this process with them and were giving them the opportunity to express their doubts and hopes, their resistance to change and their frustrations. They greatly appreciated the openness of the discussions, the spirit of collegiality, the involvement of the participants and the practical approach. It was clear that the support and the involvement of the Preparatory and Support Team had made a great deal of impact during the training. Regular meetings with colleagues starting up other inspection centers under the same difficult circumstances made mutual exchange, learning and support possible, and that was greatly appreciated. The fact that the training constantly required them to come together in discussions, and solve problems as a management team, means that they would find it easier to do the same at their own inspection centers. However, there were so many logistical problems at the inspection centers during start-up that the trainees had the feeling that the improvements possible through solving these problems were many times greater than any improvements that they themselves could make by improving their management style and the things that they could control.

Third level, third round of training for team leaders or first-line management. The three days of training ran from March to July 1999. The object of the training is the promotion of a more participatory, learning and result-driven style of interaction between management and employees, between colleagues and with superiors. The three themes or course contents - effective team building; meetings; supporting and guiding employees - are its concrete expression. The more participatory, learning and result-driven management style is a precondition for realizing the inspection centers' objectives, that is, more, thorough, result-driven and polyvalent tax inspections. Indeed, structural changes are not enough. Organizational change will not happen until the behavior of people changes.

Oral and written evaluations directly after the courses seem to dwell on the direct, practical usefulness of each of the three themes. The short theoretical discussions by relevant executives on team-building, meetings and giving feedback, the possibilities for giving and discussing personal examples, being in a direct learning situation and no longer having to speak in general terms, the comparison of experiences with colleagues, the awareness of having the same problems and the experience of supporting each other were very much appreciated. After this third training session we evaluated the effectiveness of the training. We defined 'effectiveness of the training' as "the application of work points that they had chosen in the first two months after the course." We send questionnaires to all participants. We asked among other things, to what extent these work points had been uppermost in their minds and which elements had been a help or a hindrance to apply these points; whether they saw any effects of the application of their work point(s) and, if so, which ones; and whether others too noticed any effects. Finally, they were asked how effective they thought such courses were, as stimuli in the direction towards a more participatory, learning and result-driven management style in and during work.

What are the more interesting results? One third of the respondents attempted to use their work points once or more per week, one third 3 to 5 times during the 8 weeks, and one third once or twice during the 8 weeks. 78% of the respondents see effect or even considerable effect when they practise their work points, 4% see no noteworthy effect. 40% see positive effects for the work itself (e.g., improved work methods, problem situations resolved faster and more firmly); 33% see positive effects in relations: co-operation, openness and involvement of employees. Regarding the question as to whether other persons noted any effects, approximately 40% answered yes, 20% no, 40% possibly. The indications for the Yes and Possible answers include changed relations between colleagues and oneself as well as improvements in the work as such.

Regarding the question as to whether training is effective as a stimulus in the direction towards a more participative learning and result-driven style in and during the job, 93% answered effective, which is a high percentage. More gradation is observed once the answer is more qualified: up to 20% answered *very* effective, 26% *quite* effective, 45% *slightly* effective. Only 7% answered not effective.

A striking idea is that in oral evaluations the team leaders stressed the stimulating effect of sharing their problems with peers, motivating each other by discussing different approaches to influence other parties: their bosses, the central administration, their subordinates…Attending training sessions is motivating for themselves to keep trying to work in the new direction, is giving them energy to continue to try to make the best of it, they say… Maybe this is one of the most important effects of the training, but we didn't ask this in our questionnaire after two months because we restricted effectiveness to the application of the own-choice work points from the course in the two months after the course.

Last but not least, when we see an organization as a co-creation, as something in a constant state of becoming, and when the members of the organization are continually involved in negotiating shared views of reality in order to define a common basis for joint action, our training courses can fulfill this need for time and space for discussion; they can give the open opportunity to negotiate future ways of working. In addition, following these training courses means giving joint attention to and discussing the desired new behaviour. In line with this social constructionist approach, but in a typically bureaucratic organization, we opted for a balanced mix of a structured and a participative approach between different levels of the organization. This is only a snapshot in a continuing process. We may at least conclude that organizing training in this way offers certain advantages in that it gives an open opportunity to negotiate future ways of working and makes it possible to work on the new model attitudes and skills. The present research is only a snapshot that we shall return to in future action and research.

Description of Format

This co-construction of an action-research project about an organizational change process in a bureaucratic organization has a specific format. The researcher will start the session by presenting the same background information that the researchers got at the beginning of the project. When participants are provided with all the necessary information, the researcher poses a question/problem and invites participants, sitting in small groups of three to five people, to carefully think about this question and to discuss possible steps towards a solution: what step would they take at a given moment in the contracting phase; why would they do so and what outcome do they expect from their action? We ask them to write down their group decision on large sheets of paper. After reading and discussing the ideas proposed by the different groups, we as researchers inform our audience of what we do in reality, why we do so and what the consequences are.

Next, we give information about the continuation of our research project until we arrive at the point that the plans for the restructuration are ready and that we are asked to work out the people's side of the organizational change project. Again, we involve the participants in the thinking-and-decision-making process: they're asked our to discuss and write down what they would do in the given circumstances, why they would do this and what they think the consequences would be. After reading and discussing the different proposals of the various groups, we as researchers tell our audience what we have decided to do, our reasons for doing so, and the consequences of our action. In this way, we confront all participants taking part in the session with the different steps of our action research project and allow them to make comments, formulate criticism and give advice.

Before all this, we start this innovative session with explaining the purpose and the format and ask the audience what their goals are and what their guiding principles are in order to obtain an interesting learning experience. We will then try to build a shared meaning about this as a starting point.

Theoretical Framework

We conducted this research and organizational development project as part of an action research study on the optimization of quality and service in the Belgian Tax Administration that started in 1992 and is still in progress. It is based on a social constructionist approach (Weick 1995; Gergen 1994; Bouwen 1994). This means that an organization is seen as a co-creation, as something in a constant state of becoming. Members have their own meanings, their own opinions, their own views on everything. The members of the organization are continually involved in negotiating shared views of reality in order to define a common basis for joint action. The organization is the result of these permanent negotiations. In line with this social constructionist approach, we opted for cooperation between researcher and clients and set up a joint steering committee. This steering committee set the course and the objectives throughout the project and evaluated the interim reports.

It is typical of a bureaucracy for the processes of thinking, decision-making, execution and reflective feedback to be separated (Swieringa 1990, p. 86). Leaders in a typical bureaucratic organization (such as the Ministry of Finance) are merely supposed to follow the rules and procedures and to make sure that their people also follow the rules and procedures (Pinchot 1993, p. 26). Becoming more result- and quality-driven means more..., more delegation of responsibility, more sharing of information and more team-building (Beer, Eisenstat, Spector 1990, p. 159). In order to become a more quality- and result-centered organization, the processes of thinking, decision-making, execution and reflective feedback have to come closer to the front office (work floor). People have to rely less on hierarchy, formal rules, procedures and function-descriptions and to be more focused on quality and results (Pinchot 1993, p. 29).

In a bureaucratic organization, change almost always means a structural change (Morgan 1994). But unless all the other organizational components are changed or will change, it is impossible to have a new and effective organization. Unless people at different levels change their behavior, effective or organizational change will not happen. Unless all organizational components - the "7 S's": strategy, structure, systems, staff, skills, style, super ordinate goals - are changed and are congruent with each other, the organization will not be effective (Waterman, Peters 1991, p. 556).

This new kind of behavior (being more focused on quality and results and less on hierarchy and rules) has not only to be taught and known by the managers, but also to be executed by them (Pfeffer & Sutton, 2000, p.7). It is not enough that individuals possess this new knowledge and skills, they all have to behave in the new way and, therefore, collective learning processes are needed (Swieringa, 1990, p. 71). This means that people collectively learn to behave in a new way, following more flexible rules and principles. This new, collective, learning process is mainly an unlearning process of old, mostly unconsciously integrated behavior, such as, e.g., avoiding conflicts, always standing behind the boss, keeping in the background, avoiding uncertainties and criticism.

In order to be effective, the training for the new behavior has to be new enough to learn new things and old enough (= as before) so that the top management and the participants will trust it. Learning and integrating new behavior requires a balanced mix of old and new, of challenge and trust (Bouwen 1988). Harrisson (1970, p. 189) recommends the trainer to go one and only one step further and deeper than the present level of the participants. The training has to be a rather structured one (which is normal for members of a bureaucracy), with the learning purposes fixed and coming from the new requirements of the new organization translated into new required knowledge, skills and attitudes. During this training, the new vision and new required behavior has to be presented in a rather convincing way (that is, resembling the previous situation). But the training also has to give them the opportunity to exchange opinions and experiences, to come up with new ideas and proposals (the new part). A further novelty is the two-way communication process instead of only selling or imposing. And the trainer has to be in a position where he can do something with the proposals and the frustrations. He has to have a link, or rather a contract, with the top management, so that the ideas and proposals of the members of the organization can be studied and taken into account (Swieringa 1990, p. 73).

In line with this action research study, based upon a social constructionist approach, we look at each group and diagnose their actual situation, discuss their preferred or ideal situation, their own expectations and those of their superiors, and discuss the way to act in order to reach the next step to the desired situation, together with them. This process of collectively deciding to give the new organization the opportunity to succeed is the most decisive within the learning process. In these collective learning sessions, leaders and subordinates find themselves at the same (starting) level: they acquire new ways of thinking together about how they can optimally fulfill the requirements of the work; of deciding together what to do in certain conditions, or elaborating the criteria to take action and so on. In this way, account is taken of, and an answer found to, one of the basic weaknesses of a bureaucracy; the separation of thinking, decision-making, execution and reflective feedback (Swieringa 1990, p. 71).

Conclusion

In line with our philosophy of an organization as something in a constant state of becoming, where members are constantly negotiating shared views of reality, we will take the participants through some of the key moments in our action research project that ran from 1992 until 2000. We start our innovative session by sharing and discussing the different goals and guiding principles of the participants in order to obtain an interesting learning experience. By discussing things and talking things through, we try to reach shared perceptions of problems and advices.

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[i] The new Administration of Corporate Taxes and Incomes was created in November 1997. It started as a new superstructure, consisting of parts of the Administration of Direct Taxes (or income tax) and the Administration for VAT (value-added tax). In the early days, it was directed by a team of five top managers supported by a Preparatory and Support Team *(Dienst Voorbereiding en Begeleiding)* of 12 members. This large top management and support structure was again changed in March 1999, becoming a team of four top managers and six management committee members in support. The new administration consists of 48 inspection centers, spread across Belgium. About half the inspection centers are Dutch-speaking, the other half French-speaking, and there are some bilingual centers in Brussels. The intention is that the tax files in the inspection centers are inspected for the two kinds of tax together. Polyvalent teams will do this with a team leader, which is a novelty. These teams consist of former employees of Direct Taxes and of VAT now working closely together for the first time.

[ii] French speaking team leaders between October and December and the 260 Dutch-speaking team leaders between January and June 1999. Only the latter took part in this research, due to time and cost restrictions.

An Examination of the Multiple Intelligences Developmental Assessment Scales (MIDAS)

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Wider acceptance and use of Multiple Intelligence theory by psychologists, educators, and trainers have been thwarted by the lack of a practical, reliable and valid method of assessment. When used as a diagnostic and combined with behavioral observations, the MIDAS instrument could be useful in facilitating career choices and tailoring learning opportunities to multiple means of understanding. The purpose of this study was to explore the MIDAS's psychometric saliency.

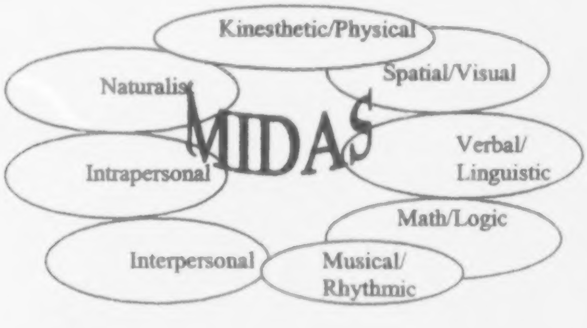
Key Words: Multiple Intelligence, Measurement, MIDAS

What relevance is intelligence to education and training? Would it be helpful to diagnose, prescreen, and or predict some measure of success in specific fields of endeavor? This paper assumes its obvious relevance and contribution. Our attention herein is upon the measurement of intelligence that has become synonymous with the construct in our western culture. Measurement (of intelligence) has been a major focus since Alfred Binet developed the first test of cognitive abilities for French school children in 1905. In spite of Binet's refusal to claim that his test actually measured intelligence, his invention became the basis for one of psychology's most enduring contributions to education and society of the 20th century (Binet & Simon, 1916). In the wake of Binet's work, the unitary definition of intelligence -- as exemplified by the intelligence quotient (I.Q.) and assessed by the Stanford-Binet, Weschler and college admission tests -- has become a commonplace.

Although prominent theorists such as J.P. Guilford (1967), L.L. Thurstone (1947) and R.J. Sternberg (1988) have offered multi-factored alternatives to the unitary I.Q. model, none have had the impact on the educational community as that of the theory of multiple intelligences (MI).

In 1983, Howard Gardner proposed that human intelligence is best defined as a "bio-social potential" that allows a person to solve problems and create products that are valued within a community. Using this definition and eight criteria Gardner has identified at least eight distinct yet complementary constructs: linguistic, logical-mathematical, musical, spatial, kinesthetic, interpersonal and intrapersonal and naturalist (1993).

Figure 1. Gardner Constructs represented by the MIDAS



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The Multiple Intelligences Developmental Assessment Scales (MIDAS)

Wider acceptance and use of MI theory by psychologists, educators, and trainers has been thwarted by the lack of a practical, reliable and valid method of assessment. MI theory itself has likewise been viewed with suspicion by traditional cognitive scientists accustomed to assuming that intelligence can be quantified via a single I.Q. score. Critics of MI theory dismiss its legitimacy by claiming that it is more of a "literary" rather than "scientific" theory because there is no valid method of measurement that produces quantifiable data. Gardner's contextual and culturally embedded definition of intelligence challenges the assumption that intellectual prowess can be reduced to a single score that can be measured via paper-and-pencil and decontextualized tests. In the MI perspective, the vast majority of "real world" problem-solving occurs within value-laden, stimulus-rich situations requiring something more than answering short questions with short answers as quickly as possible. This contextually-based conception of intellectual ability requires a contextual approach to assessment in order to describe the person's intellectual and creative life (Shearer, 1994).

The Multiple Intelligences Developmental Assessment Scales (MIDAS) were originally created in 1986 to be administered to adults in conjunction with a neuropsychological evaluation. It was first developed as an interview to be conducted with a family member to obtain an understanding of the intellectual profile of the patient (Shearer, 1994). Uses since its conversion to a paper pencil questionnaire are now targeted at adult populations to quickly self-assess one's MI profile for counseling and educational uses. Because of the potential for the instrument to gain popularity and utility with educators, trainers, and HR practitioners, an objective assessment of the MIDAS's reliability and internal psychometric constructs (as initial evidence what it purports to measure is as important as its theoretical framework and potential applications.

According to Shearer (1994), its conversion to a 119 item self-completed questionnaire was designed to retain features of a structured interview probing for both qualitative information and quantitative data. On the questionnaire itself, response choices are marked by letter rather than by number to encourage respondents to respond to the descriptive choice rather than to a number. Likewise, the descriptors for each response option are uniquely written to fit the specific content for each question.

The questions inquire about observable activities that represent core features of each of the multiple intelligences as described by Howard Gardner. The questions are written in one of three basic forms. A majority of questions ask the informant to provide a realistic evaluation of his/her skill level in a specified activity. The second type of questions inquire about the frequency or duration of time the respondent spends engaged in an activity representative of the designated construct. The fewest number of questions ask for an assessment of the respondent's enthusiasm for the target activity. The MIDAS Profile consists of percentage scores for the eight areas of intelligence along with 29 sub-scale scores describing specific skills. Scale scores are calculated and used to profile respondents.

The wording of questions; scale composition and scoring matrices went through a lengthy series revisions and testing from 1987 through 1996 (Shearer, 1994). An initial series of small scale studies reported acceptable psychometric properties including factor structure, item consistency, test-retest reliability, inter-rater agreement; subscale factor analysis and appropriate discrimination with various criterion groups and measures (Shearer, 1994; Buros, 1999).

Purpose

The MIDAS instrument was intended to help in providing a means to indicate relative interest in and one's self - evaluation of abilities in regard to Gardner's eight facets of intelligences. Though arguably not an achievement or aptitude scale, when used as a diagnostic and combined with behavioral observations, the MIDAS could be useful in facilitating career choices and tailoring learning opportunities to multiple means of understanding. The purpose of this correlational study is to help explore the MIDAS's psychometric saliency by examining the reliability (internal consistency) and factor constructs of the instrument and its scales. Moreover, this study was to further examine the MIDAS scales using exploratory factor analytic techniques with a significantly larger sample than was available during the instrument's development.

Method

Sample and Data Analyses. Sample size requirements are driven by recommended factor-analytic and structural equation modeling (SEM) conventions with regard to subject (orcase) to variable (or parameter) ratios and minimum size of samples. It is generally advocated that for factor-analytic work an acceptable or "rule of thumb" ratio should be at least five cases per variable, with a minimum sample size to be 200 (Kline, 1993; Tabachnick & Fidell, 1989). Kline (1998) also recommends sample sizes of at least 200 for SEM analyses. To analyze the MIDAS's 119 items, a total sample of 1419 adults were be used. A total of 1419 protocols were coded analyzed in StatView 5.0 (SAS) for internal reliability, principle component, and factor analyses.

Psychometrics. To adequately examine the MIDAS, the analyses performed in this study followed very deliberate conventions (Nunnally & Bernstein, 1994; Tabachnick & Fidell, 1989): demographic frequency distribution analysis, an internal reliability analysis (Cronbach's alpha), an examination of the correlation matrix for factorability, the number of factors to retain were user specified based on MI theory, after which an iterative or common factor analysis was performed for the final extraction, factor stability comparisons, potential second order implications, and possible theoretical interpretations.

Results

Reliability. In this study, all eight scales yielded reliability coefficients of .85 to .90 (Cronbach Alpha) as depicted below in Table 1:

Table 1. Reliability (MIDAS)

Scales	Alpha Coefficients
Musical	.87
Physical	.85
Math/logic	.85
Spatial	.87
Linguistic	.86
Interpersonal	.86
Intrapersonal	.90
Naturalist	.88

Exploratory Factor Analysis. Based on the MIDAS's theoretical framework (some expected commonality among constructs), eight factors were specified and a simple oblique solution was sought using an iterative or common factor extraction. With a varimax rotation, the following eigenvalues were produced: 15.2, 7.6, 5.1, 4.5, 3.8, 2.9, 2.6, and 1.7 respectively accounting for .36 of the variance. Factor loadings are depicted below in Table 2.

Table 2. EFA, Eight Factors, Varimax Rotation, Oblique Solution

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8
Musical	0.01	0.15	0.09	**0.58**	-0.17	-0.08	-0.09	-0.02
Musical	0.10	0.05	0.04	**0.49**	-0.11	-0.06	-0.07	0.01
Musical	0.03	0.00	-0.01	**0.53**	-0.08	-0.04	-0.09	0.13
Musical	-0.03	0.02	0.05	**0.43**	-0.03	-0.06	-0.09	0.14
Musical	0.09	-0.04	-0.04	**0.63**	-0.07	-0.06	-0.05	0.07
Musical	0.01	0.03	-0.05	**0.61**	0.05	0.01	0.09	-0.19
Musical	-0.02	-0.13	0.01	**0.55**	0.05	0.10	0.03	0.04
Musical	-0.01	-0.05	0.00	**0.64**	0.13	0.07	0.02	0.03
Musical	0.01	-0.04	-0.04	**0.68**	0.10	0.08	0.01	0.00
Musical	0.00	-0.08	-0.06	**0.65**	0.05	0.10	0.03	-0.08
Musical	0.04	0.06	-0.06	**0.51**	0.03	-0.08	0.01	0.10
Musical	0.03	0.01	0.07	**0.53**	0.02	0.05	0.00	-0.11
Musical	-0.03	-0.05	0.00	**0.56**	0.06	0.08	0.03	0.00
Musical	0.01	0.06	-0.05	**0.53**	0.11	0.01	0.12	-0.18
Physical	-0.05	0.01	-0.01	-0.08	**0.78**	-0.11	-0.08	0.07
Physical	0.01	-0.04	0.04	-0.04	**0.80**	0.01	-0.08	0.05
Physical	-0.06	0.15	-0.06	0.29	-0.08	0.11	0.01	-0.02

Physical	-0.02	0.05	0.02	0.04	**0.66**	-0.02	0.01	0.04
Physical	-0.03	0.17	0.04	0.09	**0.34**	0.00	0.04	-0.03
Physical	0.06	-0.01	-0.02	-0.02	**0.81**	0.00	-0.15	0.03
Physical	0.05	0.19	0.15	-0.03	**0.40**	-0.09	0.05	-0.12
Physical	0.11	0.11	0.00	0.10	**0.31**	-0.17	0.19	0.13
Physical	0.11	0.16	0.00	0.10	-0.14	-0.19	**0.48**	-0.04
Physical	0.05	-0.04	0.07	-0.02	0.08	-0.08	**0.62**	0.03
Physical	-0.24	0.08	-0.03	0.08	0.22	0.20	**0.31**	0.05
Physical	-0.14	0.21	-0.08	0.20	0.17	0.02	0.15	0.01
Physical	-0.05	0.18	-0.01	0.06	0.08	-0.05	0.14	-0.01
math/logic	**0.74**	0.01	-0.08	0.10	-0.12	-0.08	-0.12	-0.06
math/logic	**0.80**	-0.03	-0.03	0.08	-0.06	-0.10	-0.09	-0.07
math/logic	**0.67**	-0.01	-0.04	0.08	-0.07	-0.05	-0.14	-0.07
math/logic	**0.45**	-0.22	**0.30**	-0.01	0.05	0.09	0.08	-0.02
math/logic	**0.33**	0.02	0.09	0.05	0.11	-0.05	0.10	0.10
math/logic	**0.48**	-0.06	0.07	0.00	0.01	0.05	0.12	0.09
math/logic	0.21	0.06	0.01	0.15	-0.13	0.15	0.04	-0.05
math/logic	**0.47**	0.05	-0.05	-0.05	-0.05	-0.07	0.05	0.02
math/logic	**0.39**	0.07	-0.13	0.09	-0.04	0.03	0.06	0.11
math/logic	**0.73**	-0.05	-0.05	0.04	0.04	0.06	-0.08	0.08
math/logic	**0.44**	-0.06	0.10	0.02	0.11	0.07	0.22	0.05
math/logic	**0.45**	0.12	0.05	-0.10	0.00	-0.02	0.18	0.01
math/logic	0.19	-0.09	**0.51**	0.01	0.12	0.06	0.14	-0.08
math/logic	0.09	-0.06	0.18	0.00	0.07	0.17	0.26	-0.10
math/logic	**0.75**	0.03	0.00	-0.04	-0.04	-0.04	0.04	-0.01
math/logic	**0.73**	-0.07	-0.05	-0.06	0.12	0.04	-0.06	0.06
math/logic	**0.31**	0.16	-0.02	-0.11	-0.02	-0.04	**0.33**	0.12
spatial	0.13	0.09	0.10	0.08	-0.09	-0.15	**0.31**	0.03
spatial	0.04	-0.01	-0.01	0.04	0.04	-0.12	**0.62**	0.05
spatial	-0.02	0.07	-0.01	0.01	-0.12	-0.04	**0.77**	-0.02
spatial	0.16	0.02	0.02	0.02	0.21	0.04	0.15	**0.34**
spatial	0.21	0.06	0.06	0.08	0.04	0.02	0.07	**0.63**
spatial	**0.38**	-0.05	0.04	0.06	0.03	0.09	0.05	**0.52**
spatial	0.23	-0.13	0.09	-0.01	0.12	-0.06	**0.43**	**0.32**
spatial	**0.32**	-0.07	-0.01	0.05	0.02	-0.10	**0.39**	0.25
spatial	0.16	-0.09	0.05	0.00	-0.05	-0.03	**0.58**	0.12
spatial	-0.11	-0.06	0.07	0.08	0.03	0.11	**0.59**	-0.09
spatial	-0.09	0.11	0.13	-0.06	-0.05	0.04	**0.57**	-0.02
spatial	0.20	0.00	0.08	0.01	0.12	0.07	0.12	**0.59**
spatial	0.12	-0.08	0.09	-0.02	**0.40**	0.06	0.15	0.26
spatial	0.19	-0.02	0.01	0.00	0.02	0.10	**0.42**	0.01
spatial	-0.02	0.02	0.00	0.01	-0.06	0.12	**0.71**	-0.04
linguistic	-0.15	0.09	-0.02	0.10	-0.12	**0.59**	0.01	-0.09
linguistic	-0.12	-0.05	0.01	0.24	-0.05	**0.47**	0.06	-0.04
linguistic	-0.10	-0.02	0.00	0.08	-0.09	**0.66**	0.06	-0.03
linguistic	-0.06	-0.10	-0.02	0.29	-0.07	**0.51**	0.06	-0.05
linguistic	0.03	0.05	-0.03	-0.02	0.19	**0.63**	-0.09	0.14
linguistic	0.04	0.16	-0.05	-0.09	0.12	**0.47**	0.04	0.15
linguistic	-0.04	0.19	-0.02	-0.07	0.09	**0.52**	0.05	0.13
linguistic	0.05	0.07	0.03	-0.02	0.19	**0.51**	-0.10	0.05
linguistic	0.05	0.24	-0.03	-0.04	0.20	**0.39**	-0.03	0.09
linguistic	-0.05	0.13	-0.02	-0.02	0.08	**0.60**	-0.19	-0.04
linguistic	0.04	0.18	-0.01	-0.07	0.10	**0.53**	-0.07	0.03
linguistic	0.00	-0.05	0.03	0.09	-0.17	**0.57**	0.00	-0.07
linguistic	0.01	0.15	-0.06	0.00	0.06	**0.56**	-0.03	0.12
linguistic	-0.24	-0.04	-0.05	0.09	0.11	**0.44**	0.24	0.05

linguistic	0.08	0.00	0.01	0.00	-0.13	**0.65**	-0.04	-0.07
linguistic	0.01	0.05	0.00	0.02	-0.16	**0.60**	-0.02	0.00
linguistic	0.04	0.04	0.03	0.04	**-0.30**	**0.48**	-0.03	-0.20
linguistic	0.04	0.23	0.02	-0.01	-0.23	0.12	-0.03	-0.18
linguistic	0.11	-0.14	0.11	0.03	-0.13	**0.66**	-0.07	-0.02
linguistic	0.03	0.06	-0.02	-0.01	-0.03	**0.69**	-0.06	0.05
interpersonal	-0.02	**0.57**	-0.06	0.04	0.01	-0.06	-0.02	0.04
interpersonal	-0.07	**0.63**	-0.01	-0.01	-0.02	0.07	-0.03	0.00
interpersonal	0.12	**0.38**	-0.11	0.01	0.13	**0.34**	-0.03	0.04
interpersonal	-0.11	**0.34**	0.02	-0.02	0.07	0.00	-0.09	-0.01
interpersonal	-0.03	**0.65**	0.00	0.05	-0.10	-0.03	0.03	-0.07
interpersonal	-0.03	**0.59**	0.01	0.05	-0.13	-0.05	0.16	-0.02
interpersonal	-0.09	**0.57**	-0.03	-0.02	-0.09	0.06	0.12	-0.02
interpersonal	-0.03	**0.41**	0.01	-0.08	0.05	0.17	0.08	0.04
interpersonal	-0.13	**0.59**	-0.04	0.01	-0.04	0.13	0.08	0.00
interpersonal	-0.02	**0.43**	0.02	0.08	0.02	0.00	-0.07	0.02
interpersonal	0.04	**0.52**	-0.02	-0.01	0.05	0.09	-0.06	0.09
interpersonal	0.00	**0.42**	0.06	0.07	-0.08	-0.09	0.04	-0.03
interpersonal	-0.11	**0.53**	-0.10	0.10	0.00	-0.06	-0.06	0.02
interpersonal	0.04	**0.54**	0.04	0.01	0.09	-0.13	-0.08	-0.04
interpersonal	0.12	0.22	0.03	-0.07	0.09	0.23	-0.13	-0.09
interpersonal	0.01	**0.34**	-0.02	-0.02	-0.04	0.04	0.00	0.06
interpersonal	-0.07	**0.44**	-0.07	0.03	-0.06	-0.15	-0.13	0.00
interpersonal	-0.06	**0.38**	0.00	-0.02	0.06	0.19	0.09	0.06
IntrApersonal	0.14	**0.37**	0.03	-0.09	0.03	0.13	0.00	-0.12
IntrApersonal	0.09	**0.42**	0.05	-0.11	-0.01	0.06	0.08	-0.07
IntrApersonal	0.19	**0.38**	0.01	-0.08	-0.01	0.08	0.07	-0.24
IntrApersonal	0.23	**0.37**	0.05	-0.05	0.02	0.13	0.02	-0.08
IntrApersonal	0.15	**0.49**	0.05	-0.04	0.03	0.02	-0.10	-0.04
IntrApersonal	0.22	**0.42**	0.03	0.00	0.05	0.03	0.11	-0.15
IntrApersonal	0.10	0.19	0.10	0.03	-0.13	-0.06	-0.04	0.01
IntrApersonal	-0.06	0.22	0.02	0.05	-0.08	0.04	0.16	-0.25
IntrApersonal	-0.04	0.24	0.05	0.00	0.02	0.11	0.10	0.03
Naturalist	-0.11	0.12	**0.64**	0.04	0.00	-0.04	-0.15	0.11
Naturalist	-0.10	0.19	**0.67**	0.00	-0.02	-0.09	-0.15	0.07
Naturalist	0.01	-0.03	**0.78**	-0.03	0.10	-0.02	-0.04	0.08
Naturalist	0.01	-0.01	**0.65**	-0.01	0.03	-0.08	-0.02	0.05
Naturalist	-0.03	0.01	**0.75**	0.03	0.00	0.01	-0.10	0.13
Naturalist	-0.06	0.02	**0.81**	0.01	0.00	0.02	-0.09	0.12
Naturalist	0.05	-0.09	**0.74**	0.00	-0.01	0.03	0.09	-0.01
Naturalist	-0.01	0.02	**0.56**	-0.05	-0.06	-0.04	0.17	-0.03
Naturalist	0.02	-0.05	**0.68**	-0.04	-0.09	0.04	0.11	-0.03
Naturalist	0.24	-0.19	**0.48**	-0.02	0.10	0.09	0.11	-0.01
Naturalist	-0.01	0.07	**0.63**	0.01	0.03	-0.04	0.10	-0.14
Naturalist	-0.06	0.02	**0.50**	0.08	-0.02	0.05	0.25	-0.16
Naturalist	-0.12	0.08	**0.64**	0.01	0.03	0.04	0.09	-0.23

Note: This analysis yielded a total matrix sampling adequacy ratio of .946 and an average variable complexity ratio of 1.77.

The item loadings for factors representing Musical, Linguistic, Interpersonal, and Naturalistic intelligences were fairly robust. Loadings for items representing Physical, Math/logic, Spatial, and Intrapersonal scales were not clearly associated with any single factors. The Intrapersonal scale loaded on the same factor as the Interpersonal scale, indicating that the two constructs are not adequately distinguished from each other. The Spatial scale items loaded on two separate factors suggesting that the items may be measuring two different constructs. Additionally, some items double loaded on more than one factor and a few items did not load strongly with any specified factor.

2nd Order EFA. Due to this relative promiscuity of factor loadings on the variables, a 2nd order EFA to explore the possibility of higher order constructs was conducted. Using a root curve extraction, four factors were produced (Obique rotation) with eigenvalues of 1.3, .98, .72, and .54 respectively accounting for .44 of the variance.

Table 3. 2nd Order EFA, Oblique Solution, 4 Factors

	Factor 1	Factor 2	Factor 3	Factor 4
Obl 1	-6.76E-05	**0.955**	-0.033	0.019
Obl 2	-0.109	-0.036	**-0.443**	-0.054
Obl 3	-0.26	-0.113	-0.059	-0.069
Obl 4	5.37E-05	-0.023	-0.016	**0.731**
Obl 5	-0.075	-0.13	0.154	0.046
Obl 6	.001	-0.005	**0.743**	-0.181
Obl 7	**.932**	-0.148	-0.126	-0.183
Obl 8	0.026	-0.057	0.076	0.011

Conclusions

Reliability coefficients of all scales were .85 - .90, greater than .70 are considered adequate (Kline, 1993). This was consistent with the authors previously reported results on other smaller samples. The internal scale structure as represented by the eight factor solution yielded by the exploratory factor analysis generally supported the theoretical framework and the intent of the instrument's scales (Kline, 1993; Thurstone 1947) for five of the scales *(Musical, Math/Logic, Linguistic, Interpersonal, and Naturalist)*. The other scales were not clearly defined. Promiscuity among the variables items was evident with multiple loadings on some scales *(Spatial and Physical)*. This begged for a follow-on second order in an attempt to make sense of possible higher order constructs and the MIDAS's theoretical interrelationships. The 2nd order on this sample did not assist in an additional theoretically relevant structure to ponder.

This instrument represents an incomplete attempt to develop a valid assessment of "multiple intelligences." Further work refining conceptually some of the subscales may lead to more robust measures of these constructs. We recommend that additional EFA's and separate confirmatory models (CFAs) be conducted to further test the instrument's psychometric properties and theoretical framework after modifications are made. Additionally, construct validity studies are also needed comparing the scales to other external constructs or instruments. Finally, practitioners and users of the MIDAS should be aware that this instrument, like many others used in the human resource development arena is based on self report data. The MIDAS could be useful as an initial diagnostic tool, but is not by itself a measure of aptitude or intelligences without observation of behaviors. Arguably, there should be some correspondence between honest self -assessment and actual measure of aptitude for these dimensions. When used appropriately, for example in a career exploration, career development, or group development context, a valid instrument assessing relative strengths in multiple intelligences could have great utility.

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Evaluating Corporate Quality of Life Programs: Utilizing the Balanced Scorecard Model in Conjunction with Quasi-Experimental Design

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To help a large, decentralized government agency comply with the Government Performance and Results Act, a performance monitoring system was developed to assess the effectiveness of quality of life programs—Child and Youth Services, Fitness and Wellness programs, Food Service, and Family Support Programs. This paper discusses the applicability of the Balanced Scorecard model and preliminary results of a quasi-experimental design for measuring the effects of the programs on s related to corporate performance outcomes.

Keywords: Quality of life programs, Balanced Scorecard, Performance Measurement

Research—primarily with private sector organizations—indicates that work and quality of life (QOL) have reciprocal relationships (Crosby, 1991). Private sector "work-life" programs are designed to help employees achieve balance between their work and their lives outside work (Friedman & Galinsky, 1992). Government organizations have the same work-family balance issues and have implemented similar programs. Given changes in the nature of work (i.e. employment relationships, workforce demographics), QOL issues are highly salient today and quality of life has become an increasingly important research topic. Moreover, since the implementation of the Government Performance and Results Act, in 1993, government employers are now compelled to assess the effectiveness of their operations, including their QOL programs. This paper describes the development of a performance monitoring system for the QOL programs of a large, decentralized government agency. The system was designed using the Balanced Scorecard (BSC) model for strategic planning, measurement and program management in conjunction with a synthesis of research findings. It will provide ongoing measurement of administrative efficiency and impact on corporate performance outcomes such as recruitment, retention, absenteeism and customer satisfaction.

Research Questions

This paper examines three questions:

- Can the Balanced Scorecard approach be used to create a workable system for measuring the performance of QOL programs?
- Can such a system deliver evidence of the contribution of QOL programs to corporate outcomes?
- If so, which corporate outcomes (satisfaction, retention, recruitment, absenteeism, productivity) are influenced by which QOL programs (childcare, food service, fitness and wellness, family programs)?

Background

The Balanced Scorecard (BSC)—a model for strategic planning, measurement, and program management—was adopted by the government agency for all of its corporate support programs and offered a promising approach for conceptualizing, defining, and implementing the QOL performance monitoring system. Developed by Robert Kaplan and David Norton (1996), the model defines a procedure for establishing performance goals and using multiple measures to make management decisions. As a four-phase management tool (see Figure 1), the BSC allows managers to ensure that business decisions are not based solely on financial data. It also allows some measures to influence decisions more than other measures by weighting the data. While the model should not be construed as a theory of performance measurement, a measurement system defined from this framework is an

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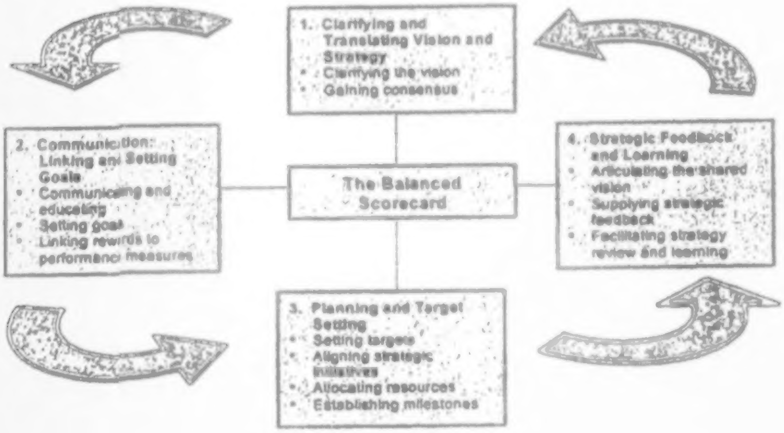
implicit logic model for predicting the impact of the QOL programs as interventions. The BSC approach involves program staff in developing a performance measurement system that tailors the measurement process closely to program activities. Moreover, based on the notion that multiple measures provide more explanatory power, the model incorporates customer satisfaction, program management, and cost effectiveness data as well as corporate outcome measurement, all of which were identified by agency staff as critical performance domains.

Methodology

The diagram in Figure 1 illustrates the way the BSC functions as a strategic framework. It shows a cycle of four activities for which the scorecard is the central or anchoring element. The development of the QOL business plan and performance monitoring system was consistent with the BSC development model (see Figure 1). In the first phase the QOL vision was clarified and consensus was gained about design issues. Meetings were held with program managers over a twelve-month period to (1) review background research and data, (2) define a strategy for developing the business plan, (3) develop the mission and vision statements, and (4) define goals and objectives. These statements formed the foundation of the business plan and performance monitoring system. An effort was made to define a few discreet goals and objectives for which achievement could be measured and that would lead to program improvement. Three major goals were defined, and three objectives were defined for each goal. The goals and objectives comprise the framework for performance monitoring and program development.

Figure 1.
The Balanced Scorecard as a Strategic Framework


1. Clarifying and Translating Vision and Strategy
• Clarifying the vision
• Gaining consensus
2. Communication: Linking and Setting Goals
• Communicating and educating
• Setting goal
• Linking rewards to performance measures
The Balanced Scorecard
4. Strategic Feedback and Learning
• Articulating the shared vision
• Supplying strategic feedback
• Facilitating strategy review and learning
3. Planning and Target Setting
• Setting targets
• Aligning strategic initiatives
• Allocating resources
• Establishing milestones

Phase 1: Clarifying and Translating the Vision and Strategy

The first phase was devoted to clarifying the QOL vision and gaining consensus among program managers about system design issues. Considerable effort was invested in preliminary research to acquire the information necessary to help managers define their expectations about program effects and the types of measures needed to demonstrate results. Comprehensive coverage of background issues involved: (1) reviewing the literature QOL programs in comparable organizations to determine where corporate outcomes had been affected by QOL programs and which QOL programs could affect corporate outcomes; (2) conducting a survey of supervisors to determine their beliefs about QOL program effects on corporate outcomes and; (3) conducting focus groups at several locations to assess perceptions about program strengths and weaknesses which augmented the empirical findings.

The findings—described below—helped managers identify feasible and potentially sensitive measurement procedures.

Child and Youth Services. This organization offered a variety of child and youth programs including full day on-site childcare, before and after school childcare, and childcare vouchers. Studies that examined the impact of on-site childcare on attitudinal outcomes reported mixed results. One literature review found little evidence that on-site childcare enhanced job satisfaction (Miller, 1984) while other research found an increase in organizational commitment and job satisfaction with the presence of on-site childcare (Kossek & Nichol, 1992; Youngblood & Chambers-Cook, 1984). In addition, while one study found access to on-site childcare resulted in the perception of greater work-family balance (O'Brien, Maher, Buffardi, Smith, & Erdwins, 1997), other research found this benefit was unrelated to work-family conflict (Goff, et al, 1990). Research examining the impact of on-site childcare on behavioral outcomes (i.e. absenteeism) provided less support for its efficacy. Though one study (Youngblood & Chambers-Cook, 1984) found a small reduction in absenteeism from 8% to 3% with implementation of on-site childcare, this change was not statistically significant. Kossek and Nichol (1992) found that supervisors did not rate users of on-site childcare differently than non-users with respect to performance or perceived absenteeism. Finally, Goff, et al (1990) found that presence of on-site childcare did not reduce absenteeism. Likewise, focus group members felt that unless sick childcare was offered (it was not), on-site childcare was unlikely to influence absenteeism.

Fitness and Wellness Programs. The agency offered on-site fitness centers as well as a variety of wellness education seminars on topics such as smoking cessation, nutrition, and stress management. The literature included studies of programs such as on-site fitness centers, nutrition education programs, health promotion programs, fitness and health risk evaluations, and supervised aerobic classes. Overall, empirical research on fitness and wellness programs provided some support for the impacts of such programs on important outcomes. One study (Leutzinger & Blanke) explored the effects of fitness centers on perceived productivity and fitness perceptions, and found that fitness center members were more likely than non-members to report positive impressions of the center and beliefs that use was linked with worker productivity. Another study (Sanderson, 1986) found that participation in an employee fitness program was related to positive health outcomes, increased job satisfaction, and decreased tardiness. Likewise, Gallant (1986) found that participation in an employee health promotion program was associated with fewer health risk factors, increased job satisfaction, and decreased absenteeism. Bertera (1993) found that at-risk employees who participated in a health promotion program used less sick leave and had more favorable results on a variety of health indicators such as cholesterol level, systolic blood pressure, amount of alcohol consumed, and use of seat belts. Finally, a study of the effects of stress management training (Leakey, Littlewood, Reynolds, & Brunce, 1994) found that participation was related to an enduring increase in psychological well-being.

Food Service Programs. While the anecdotal literature on QOL programs offers examples of employers who offer on-site cafeterias and take-out meals to their employees, no published empirical research evaluating these programs has been conducted. However, since this organization offered food services as a core QOL program, they were interested in exploring its impact on corporate outcomes. In addition, focus group results revealed that QOL managers perceived on-site food service was linked to increased satisfaction, shorter lunch breaks, and increased worker productivity.

Family Support Programs. The family support programs in this organization included both relocation assistance for relocating employees and their families, and a Family Advocacy Program (FAP) that provides services aimed at prevention and treatment of family problems through programs such as anger management and effective parenting. The extant empirical literature had not explored the effects of these types programs on corporate outcomes. However, as core programs for this agency, they were included in the evaluation plan. Furthermore, program managers who participated in focus groups expressed their beliefs that relocation assistance services were associated with decreased stress, lower absenteeism, and enhanced financial well-being, and that FAP use was related to increased satisfaction.

Phase 2: Communication: Linking and Setting Goals

The second activity involves communicating information about the strategic objectives, performance weighting, and the BSC to all business units, obtaining commitment from the staff, and helping each unit set long-term ("stretch") goals. Long-term (three- to five-year) goals are used to plan, set targets, define milestones, and align strategic initiatives. In this phase, specifications for goals and objectives were presented to field staff for review. The presentation also was an opportunity to describe the advantages of having a homogeneous framework for assessing performance and the projected use of the data to support budget requests. Participants provided valuable information about design shortcomings, implementation obstacles, and data collection issues, all of which were incorporated in revisions to the design.

Phase 3: Planning and Target Setting

The third activity required that field staff for each QOL program area define short-term (one-year) goals, measures, minimum acceptable performance levels, and a weighting system (point allocation for each measure) appropriate for their operation. While overall goals and objectives were developed to apply across all four program areas, performance standards and indicators had to be program-specific. Using the goals and objectives as a framework, field staff members reviewed draft lists of standards, indicators, and measures, and revised material based on the utility of the information and feasibility of collecting the data. Thus, targets were established, staff gained an understanding about how program-specific strategic initiatives could align with goals and objectives (e.g., for marketing efforts), resources were identified, and milestones were established. Here, the procedure departed from the BSC model and the illustration in Figure 1. Weights have not yet been assigned for core program contribution to overall QOL performance or for each type of data to core program performance. Weights can be assigned at the end of the business cycle when the first round of data collection is complete and results are reviewed. This staff review was important to implementation. Program staff members now have a common frame of reference for measuring performance, but they define standards and measures that reflect the specific function of their program. They also play a key role in defining the standards by which the program will be judged and possess clear understanding of the data collection procedures.

Phase 4: Strategic Feedback and Learning

The fourth activity involves the use of scorecard data to assess progress and make business decisions. As the diagram in Figure 1 suggests, this process feeds directly back into the clarification and translation activity and sets system modifications in motion for the next cycle. The "scorecard" includes "scores" on multiple measures of performance in several categories, such as financial data, customer feedback, internal management indicators, and measures of employee skills and skill development needs. "Balance" is achieved by applying weights to performance data that reflect judgments about importance. For example, financial data may be weighted more heavily than data on addressing employee development needs. In the BSC model, balance also should be achieved between external measures (e.g., for customers and stakeholders) and internal measures or "performance drivers" (e.g., measures of business processes), as well as between quantitative data (e.g., outcome measures such as net profit or average response time) and qualitative data (subjective judgements).

Figure 2 illustrates how the organization can use the BSC approach. The table includes performance data, the performance targets to which the data are compared, and the use of weights to generate scores. Scores are tabulated for four categories of outcomes: corporate outcomes, program management, cost performance, and customer satisfaction. Of the performance categories, customer satisfaction was judged by the childcare staff to be most important. Scores for customer satisfaction receive a weight of 30 of 100 points. Of the four customer satisfaction measures, parent ratings of curriculum are considered most important. The on-site childcare business unit can earn a maximum of 10 of 30 points if performance targets are reached.

Quasi-Experimental Research Design

The quasi-experimental design was integrated into the BSC approach through the examination of corporate benefit. In designing research to explore the effects of QOL programs, the dilemma was to generate the most rigorous design possible within this applied setting. While the research design providing the greatest degree of rigor is the randomized experimental design (Cook & Campbell, 1979), this design requires (1) to have both an experimental (program participation) and a control (no participation) group, and (2) random assignment to conditions. Given the pragmatic constraints of the organization, random assignment was not possible. Thus, the system incorporates a quasi-experimental design for data analysis that includes treatment and control groups, but without random assignment. This quasi-experiment will be used to examine the impact of QOL programs on outcomes. For each program area, users and non-users will be compared on outcomes. In addition, the non-user comparison group will be chosen so that relevant demographic characteristics are similar to those in the user group.

For instance, when comparing users and non-users of on-site childcare, non-users will be chosen who are custodial parents of children of a similar age, but who use off-site childcare. Thus, when satisfaction levels and retention rates for the two groups are compared, findings will not be confounded by individual differences like need for childcare or age of children. Likewise, when satisfaction data from users and non-users of fitness center are compared, non-users will be matched to users on demographic characteristics, such as age, gender, and job type.

Specific Hypotheses

The literature review findings and focus group results were utilized to generate specific hypotheses regarding the impact of each of the four core programs on corporate outcomes. Performance standards are a fundamental component of a BSC. Defining performance standards is similar to stating predictions about what will be achieved as a result of implementing programs. With respect to QOL programs, predictions pertain to four categories of outcomes: customer satisfaction, management effectiveness, corporate benefit, and return on investment. Performance standards and measures were defined for each program area. Performance data will indicate whether the standards are met. The hypotheses are delineated in the section that follows.

Child and Youth Programs. Based on the review of the childcare literature (Kossek & Nichol, 1992; Youngblood and Chambers-Cook, 1984), we expected that users of on-site childcare services would report more satisfaction with the organization than non-users who used off-site childcare. While empirical research did not examine effects of childcare on turnover, focus groups revealed perceptions that such services facilitated retention. In addition, it is reasonable that employees who have their children happily situated in on-site childcare would be more reluctant to change jobs. Thus, the following hypotheses were made regarding on-site childcare:

Hypothesis 1. Users of on-site childcare programs will exhibit greater satisfaction with the organization than employees who use off-site services.

Hypothesis 2. Users of on-site childcare programs will exhibit lower turnover than employees who use off-site services.

Fitness and Wellness Programs. Several studies in the literature indicated fitness and wellness program use was linked to increased job satisfaction (Sanderson, 1986; Gallant, 1986) and reduced absenteeism (Gallant, 1986). Thus, the following hypotheses were made regarding the effects of fitness and wellness programs:

Hypothesis 3. Users of fitness and wellness programs will be more satisfied with their jobs than non-users.

Hypothesis 4. Users of fitness and wellness programs will exhibit lower turnover than non-users.

Food Service Programs. While no published research explored the effects of food service programs on corporate outcomes, results of our focus groups revealed that program managers expected a link between food service use and organizational satisfaction. Thus, the following hypothesis was generated:

Hypothesis 5. Food service use and satisfaction will be positively correlated such that more frequent use of food services will be associated with greater satisfaction with the organization.

Family Support Programs. While published research did not explore the effects of relocation services on outcomes, focus group participants felt individuals who used relocation assistance would exhibit less stress and spend fewer hours handling moving-related activities than those who did not. In addition, while published literature did not explore effects of FAP, focus group participants believed participation was linked to greater satisfaction. Thus, the following hypotheses were generated with respect to family support programs:

Hypothesis 6. Employees who use the relocation assistance program will report lower stress than employees who relocate but do not use the program.

Hypothesis 7. Employees who use the relocation assistance program will report fewer hours away from work handling moving-related errands than employees who relocate but do not use the program.

Hypothesis 8. Employees who use FAP will exhibit higher satisfaction with the organization than employees who do not.

Results

The basic BSC development and implementation process involves four steps: (1) defining overall organizational performance goals and relevant indicators for measuring goal achievement, (2) communicating information about goals and measures to work units, (3) establishing performance targets and measurement procedures within units, and (4) using measures (performance data) to determine if goals have been achieved and re-define performance

Figure 2. Hypothetical Scorecard: On-site Childcare

Same for all business units

Determined by business unit: different for each unit

Long-term goal

Short-term goal

Category	Corporate Outcome		Program Management			Cost	Customer Satisfaction			
Weight	25%		25%			20%	30%			
Measure	Childcare use linked to satisfaction with agency	Childcare availability linked to job offer acceptance	Staff are meet NAEYC accreditation standards	Staff turnover rate	Parents attend orientation	Cost savings due to increased retention	High Ratings Received for curriculum	High ratings for parent-staff collaboration	High ratings for convenient hours	High ratings for parent education
Strategic Objective	$R^2 > .75$	$R^2 > .70$	97%	30 %	90%	TBD	95%	95%	90%	90%
FY 2001 target	$R^2 > .65$	$R^2 > .60$	90%	40 %	80%	TBD	85%	85%	80%	75%
Zero value	$R^2 > .25$	$R^2 > .30$	50%	50 %	50%	TBD	60%	60%	50%	50%
Actual	$R^2 > .43$	$R^2 > .53$	65%	35 %	70%	TBD	78%	55%	65%	70%
Earned Points	9.1	8.1	6	6	3	TBD	7.4	3	4.6	3.9
Maximum Points	15	10	12	4	5	20	10	7	7	6

Total score	51.1	x1.35	68.9
Maximum score.	74	x1.35	100

Current rate – updated annually

Score of a possible 15

Weight for importance to organization

Minimum acceptable performance

Defined by business unit: sum to total for category (e.g., sum to 25 points for "corporate outcomes")

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goals and indicators. Currently, the first three steps have been completed and the fourth step will be conducted after data collection is completed. Used in conjunction with a thorough review of existing research, the approach functions well for developing a performance measurement system. It provides a common framework for developing performance objectives and for reporting results that can be tailored to individual program areas. Agency leaders believed the BSC would provide a common focus for the organization and it proved to be effective for establishing goals and objectives that apply to different programs and accommodate program-specific performance standards and data collection. However, this approach is not without shortcomings. Development required intensive participation of agency management and field staff. Agency QOL program mangers dedicated numerous hours to development of the business plan over a 12-month period. The managers participated in six day-long work sessions, reviewed materials independently, and facilitated the review by field staff. Moreover implementation of a BSC requires commitment of resources for planning and training. The required level of investment was achieved because the QOL program director supported the effort by setting expectations for staff and providing resources needed to fund contractor activities, hold work sessions, and provide materials. When fully implemented, a BSC data management system will permit on-going performance tracking from all levels of the organization and provides diagnostic information to address problems. When this agency's data management system is implemented, performance data will facilitate tracking progress by program staff at multiple locations. Data can also be used to modify program plans. Thus, a BSC system can foster communication between levels and across functional areas in an organization. Achieving this enhanced communication is not easy. This project required hiring an external contractor to develop and maintain a database, requiring substantial time and financial resources. In addition, skilled IT staff who understand the difficulties in combining data from several electronic sources of different configuration are necessary.

Conclusions and Recommendations.

Despite some evidence that QOL programs contribute to corporate outcomes, literature review findings were inconsistent. A recurring criticism was that measures were not tied to program activities and were not developed by program staff that could inform predictions. These shortcomings were addressed by applying a BSC approach that requires intensive involvement of staff in the specification of goals, objectives, and measures. However, although the BSC model appears to be relatively simple, developing and implementing a BSC management system is a complex, labor-intensive process in which numerous obstacles can arise. First, the time required for developing and implementing a BSC system is much more than Kaplan and Norton's 16-week estimate. Interruptions of several months occurred in the development of the QOL performance monitoring system. Nevertheless, three years were required to complete preliminary research and work through the design process. Additional time will be required to develop the necessary database. Second, the BSC requires an elaborate, complex data management system to deliver tracking and diagnostic information that foster communication. The complexities of database development are gradually becoming apparent as the implementation process begins and more development time is required than was anticipated. Third, there are several issues the BSC literature does not address. There is no discussion of instrument development and data management procedures. While these issues are being resolved in the current effort, it required more resources and time than anticipated. In addition, the BSC literature gives no guidance about achieving consensus on performance targets, appropriate measures, and data interpretation procedures. Achieving consensus requires skilled facilitation and staff determined to define a simple, workable system. Finally, data management is potentially the most serious obstacle to use of the BSC. Organizations contemplating a BSC management system should be aware of the data management issues so that they can anticipate cost implications before embarking on development. To meet data management requirements for this agency, a team of IT consultants will build an SQL-based data warehouse capable of integrating data for four program areas and five data sources. Furthermore, to make the BSC data management system accessible from computers at any level in the agency, and to allow employees at all levels to track performance, many security management issues need to be dealt with.

Effects on Corporate Outcomes

Conclusions cannot yet be drawn regarding the effects of QOL programs on corporate outcomes. However, once data are collected and analyzed we should be able to make data-based program recommendations. The hope is that QOL programs will be associated with greater retention, increased satisfaction, reduced stress, and reduced absenteeism. Program effectiveness at producing such outcomes is an important indicator of success. If, in fact, such programs are linked to corporate outcomes, this provides a strong argument for continued funding. However, if not linked to outcomes valued by the organization, it becomes more difficult to justify the resources necessary to maintain and grow them. Thus, while implementation of such a BSC management process is costly in time and money, it may be more costly not to evaluate. Information obtained from this performance management system is critical in making effective program decisions, and ensuring program offerings facilitate the achievement of the organization's goals.

Contributions to HRD

This paper describes the development of a performance monitoring system created by integrating the BSC approach and a quasi-experimental design to evaluate Quality of Life programs. Program evaluation is an important topic in HRD, given the usefulness of evaluation in demonstrating the importance of HRD activities to upper management. Yet the implementation of thorough evaluation programs remains a challenging aspect of HRD practice. While clearly demonstrating programs facilitate learning, change behavior, and lead to desirable organizational results is superior evaluation to asking participants if they like the programs, in reality most organizations still use brief reaction forms as their sole means of program evaluation (Bassi, Benson, and Cheney, 1996). These circumstances have prompted diverse reactions from researchers from promoting the abolition of participant reactions (Holton, 1996) to suggesting empirical work to enhance the development of reaction forms which might be more useful to organizations (Morgan and Casper, in press). While HRD practitioners often find themselves in challenging predicaments in which they must show program effectiveness, yet have little financial resources to do so, for programs to remain in spite of downsizing and cost-cutting, we must demonstrate their worth. For public sector employers, the need for thorough evaluation may perhaps be greater. Not only is it desirable for government agencies to go beyond reactions to evaluate programs, it is now mandatory if agencies are to comply with the Government Performance and Results Act. In response, many agencies are jumping on the Balanced Scorecard bandwagon. This paper demonstrates that while the Balanced Scorecard is clearly one useful approach to evaluation, (1) there are numerous implementation challenges that need to be managed, and (2) it is a more comprehensive evaluation when integrated with traditional forms of research design. In providing discussion of developing and implementing a BSC evaluation system, this paper serves as a tutorial for setting up a BSC evaluation, as well as alerts evaluators potential challenges to implementation of such an approach.

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Validating a Tool to Measure Customer Service Competencies

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This study represents an extension of work to determining customer service competencies undertaken by Russ-Eft, Berrey, Boone, and Winkle (2000). The present study used the critical incidents that formed the basis of the previous work and the resulting competencies to develop and validate a tool to assess service competencies. Data were gathered from 885 customer service personnel in 10 different organizations. Results from the factor analysis and reliability analyses are presented and discussed. Recommendations concerning the role of rigorously researched instruments.

Keywords: Customer Service, Competency Assessment, Instrument Validation

Problem Statement

In a highly competitive global business climate, more and more organizations are recognizing the pivotal role of service in attracting and retaining customers (Hart & Johnson, 1999; Jevons & Pidgeon, 1999). Seeking to create a customer base that is not merely satisfied, but wildly enthusiastic and loyal, these organizations are eager to learn from research which behaviors and competencies make a difference in customer service providers. In this context, identifying and measuring customer service competencies within organizations becomes critical. Previously, Russ-Eft, Berrey, Boone, and Winkle (2000) investigated and identified a comprehensive set of service competencies. The present study describes the development and validation of an instrument designed to measure those competencies.

Theoretical Framework

Although both the practitioner and the academic literature have paid considerable attention to customer concerns, investigation of the competencies needed by customer service providers and others within organizations to win and maintain customer loyalty have drawn minimal attention. Models of customer service competencies appear or can be gleaned from the following: Berry, Parasuraman, and Zeithaml (1994), Bhote (1996), Bitner, Booms, and Tetreault (1990), Corcoran et. al. (1995), Learning International (1991), Levesque (1995), and Zemke (1995). A review of these models, all of which were developed in the late 1980s or early 1990s, reveals at least three competencies common across the various reports: (1) listening and communicating, (2) being reliable, consistent, and dependable, being respectful, courteous, and fair, and (3) solving problems.

Note, however, that only the Berry et. al. (1994), Bitner et. al. (1990), Corcoran, Petersen, Baitch, & Barrett (1995), and the Learning International (1991) studies were based on primary data collection. The first used various focus groups and surveys of customers and interviews of customer service personnel; the second used critical incidents gathered from customers; and the latter two used interviews with managers and customer service personnel or sales personnel.

As organizations enter the 21st century, decision-makers in organizations identified four business challenges facing customer service (Russ-Eft, et al, 2000):

- The customer's need for value balanced against the shareholder's need for profit.
- The customer's need for special attention balanced against the manager's need for productivity.
- The organization's need to appeal to more "profitable" customers balanced against its commitment to

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serve all customers

- The customer's new demands balanced against the organization's ability or willingness to meet those demands.

In light of the need for a current examination of customer service competencies, Russ-Eft et al (2000) undertook and reported on such a study involving over 2,100 critical incidents, gathered from frontline service representatives, others in the organization, and customers. Five major customer service factors emerged from the analysis The resulting **SERVE**^{TM} model provides a comprehensive view of service behaviors and beliefs:

- **See the "big picture" and how customer service fits into it**
- **Establish an authentic human connection with each customer**
- **Render timely, accurate and thorough service**
- **Value and respond to unique customer needs**
- **Extend a hand to repair and strengthen relationships with customers who are upset or angry.**

Figure 1 presents a description of the five factors.

Competency	Description
See the "big picture and how customer service fits into it.	Understands organizational, customer, personal/job consequences; helps, trains colleague; compensates for colleague's error, failure or absence; fixes product or system; develops new system.
Establish an authentic human connection with each customer.	Avoids phone frustration; calms upset customer; makes customer feel valued; acts with patience; provides friendly, courteous service.
Render timely, accurate and thorough service.	Gathers information; listens; helps customer through the process; thoroughly explains services/procedures; keeps customer informed; follows up; solves problem; finds alternate product or service; expedites request; takes action that was the responsibility of other departments; provides complete and detailed service.
Value and respond to unique customer needs.	Bends rules involving information, price or fees, procedures, warranty/insurance; accommodates special need or request; responds to urgent request; works off-hours to complete request; gives extra service beyond those contracted; does a kind act; fixes a customer's mistake; provides extras.
Extend a hand to repair and strengthen relationships with customers who are upset or angry.	Recovers by speeding up process, payment/price accommodation, giving special attention, fixing the problem; replacing product/service, having manager solve the problem; goes outside organization to help customer; calls another organization to complete own job; helps confused customer who called the wrong organization; refers customer to competitor or other service.

Figure 1. Description of Customer Service Competencies

Recently the Job Analysis and Competency Modeling Task Force, a work group jointly sponsored by the Professional Practice Committee and the Scientific Affairs Committee of the Society for Industrial and Organizational Psychology, published a review of work in both competency modeling and job analysis. As part of its analysis, the Task Force set forth some recommendations for competency modeling and validated instruments. The Task Force created a level-of-rigor scale and described "high rigor" as characterized by "a variable combination and logically selected mix of multiple methods used" (Schippmann et al, 2000, p. 716). Given this recent recommendation and its definition of level of rigor, it may be important to add additional quantitative analyses to supplement the qualitative analyses in order to assess the **SERVE**^{TM} competency model.

Research Questions

Having developed the competency model outlined above, we turned to the creation and validation of an instrument to measure these competencies. At this point, three key research questions were:

- What factors emerge from such an instrument?
- How do these factors correspond with the **SERVE**™ model?
- What is the reliability of such an instrument?

Method

Instrument

The instrument developed for the present study was based on the **SERVE**™ model, and items were based on the critical incidents from the Russ-Eft et al (2000) study. Each item stated a behavior or a belief, such as "Greet each customer in a friendly manner" or "Stay calm when others are upset or angry." Respondents used a seven-point Likert-type scale to indicate the extent to which they exhibit the behavior or hold the belief. A response of 1 means "Not at all," a response of 4 means "About 50% of the time," and a response of 7 means "100% of the time." Respondents were also asked how important they believed the behavior is to the effective performance of customer service. Here, 1 means "Not at all important," 4 means "Somewhat important," and 7 means "Very important." For validation purposes, only the responses to the scale asking for ratings of "extent to which the respondent exhibits the behavior or holds a particular belief" were used.

Approximately 90 items were drafted. Content experts in customer service reviewed the items for content and clarity. Seventy-seven items were retained for use in this study.

Subjects

The participants in this study were employees from ten different organizations, covering a variety of industries including higher education, insurance, business services, heavy manufacturing, and wholesale trade. Due to the way the instruments were distributed, the researchers do not know how many employees received a questionnaire, however, 885 instruments were returned. Of these, the majority of the participants were women (65%). The age category checked most frequently was 26 to 35 (37%). In general, the participants were well educated. Only 1% had not completed high school; of the remainder, 19% were high school graduates. The majority of participants had some higher education, whether vocational/technical studies (42%), a bachelor's degree (27%) or a master's degree or higher (7%). Nearly three-fourths of the participants had had some previous training in customer service skills (73%).

Procedure

A coordinator within each organization was contacted by telephone and asked to distribute questionnaires. Typically, this coordinator was someone in the Human Resources or Training department of the organization.Each subject received a questionnaire and a self-addressed stamped envelope for returning it.

Analyses

A principal-components factor analysis was undertaken, and items were deleted based on cross-loadings. After these deletions, Cronbach's alpha was calculated to determine internal consistency. Then an alpha "if item deleted" was calculated to determine the effect on the alpha when items were deleted from the scale.

Results

The total number of respondents was 885. Of these, 24 had 20% or more missing responses. These cases were removed from the analyses due to incomplete data. Thirteen participants indicated a response of 7 more than 90% of the time. Due to the lack of variance, this group was also removed from the analyses.

Prior to conducting the analyses, the item responses were checked for normal distribution. Every item was significantly negatively skewed; that is, the responses tended to be clustered at the top end of the scale. In addition, almost every item had negative kurtosis, meaning that the responses were clustered together more tightly than would be expected in normal distribution. The five items with the worst skew and kurtosis were removed from the analyses, reducing the number of items analyzed to 72.

A visual inspection of the item response distributions revealed that, although the skew was significant, it was not extreme. Furthermore, the skew was in the same direction for every item. Given the relatively large sample size, nonnormality is unlikely to have an effect on the analyses. In addition, Waternaux (1976) states that, with positive kurtosis, underestimation of variance disappears with samples of 200 or more.

Within the 848 cases included in the analyses, approximately 0.5% of the data were missing. A T-test was conducted to check for differences between respondents who answered every question and those who skipped at least one, but fewer than 15. No differences were found, (t = .312, df = 846, p = .755). This implies that there are no systematic differences between the two groups. Based upon that conclusion, missing data for an item was replaced with the overall mean for that item. Replacing the missing data allowed the retention of these respondents in the factor analysis.

The final sample of 848 resulted in a respondent to item ratio of 11.8 to 1. A ratio of between 5 to 1 and 10 to 1 is recommended for undertaking a factor analysis (Hair, Anderson, Tatham & Black, 1995; Nunnally & Bernstein, 1994).

Factor Analysis

Prior to conducting factor analysis, the data set was tested for factorability. An inspection of Pearson's correlations shows that there are numerous correlations above 0.3, indicating that factor analysis is appropriate for this data set. The data set also meets the criteria for the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO = 0.96, values of .6 and above are required for good factor analysis (Tabachnick & Fidell, 1996). A principal components factor analysis was conducted using the 72 remaining items from the questionnaire. Principal components is appropriate for this type of study, because it will provide a unique mathematical solution that may help determine the number and nature of the underlying components (Tabachnick & Fidell, 1996). Since this study is the first use of this instrument, such an exploratory analysis is required.

For the analysis, all factors with an eigenvalue greater than one were retained. An eigenvalue is a measure of variance accounted for by the factor. An eigenvalue of one means that the factor accounts for approximately the same amount of variance as an individual item in the analysis. In this analysis, there were fourteen factors with eigenvalues greater than one. An inspection of the scree plot yields no evidence that would indicate a different number of underlying factors. The total variance explained is 55%.

To facilitate interpretation, the factors were rotated. An inspection of the factor correlations when the factors were rotated obliquely show that the factors were not substantially correlated with one another (only two correlations were above 0.3, and approximately two-thirds of the correlations were below 0.2). Therefore, an orthogon (Varimax) was used for the remaining analyses. An examination of the rotated factor loadings revealed several items that loaded on more than one factor, and furthermore, there were several factors with only one item with a major (>0.30) factor loading. To clarify the factors, this analysis was repeated several times, and each time some of the cross-loading items were eliminated. The final factor analysis consists of 49 items. As the number of items was reduced, the factors coalesced into nine factors. Table 1 presents the nine factors, the average loading on the major factors, the average loading on the minor factors, and the percentage of variance explained. The average loadings were calculated using the absolute value of the loadings.

These nine factors can be mapped with accuracy to the competencies developed in the critical incident study. For example, two factors, *Being a Customer Service Advocate* and *Supporting Your Coworkers)* map onto the "S" competency of "See the "big picture and how customer service fits into it." *Providing Core Customer Service* focuses on aspects of the "E " competency, "Establish an authentic human connection with each customer." Both *Follow Through* and *Providing Information to Customers* pertain to providing attentive service to customers and can be related to the "R" competency: "Render timely, accurate and thorough service." Two factors, *Beyond Core Customer Service* and *Dealing with Diverse Customers,* mirror aspects of the "V" competency: "Value and respond to unique customer needs." *Coping with Difficult Customers/Situations* fits with the "E" competency: "Extend a hand to repair and strengthen relationships with customers who are upset or angry." In addition to these dimensions of the **SERVE**^{TM} model, another factor emerged that was labeled *Organizational Support for Customer Service.*

Table 1. Factor Analysis Results

Factor	Number of Items	Avg. Loading – Major Factor	Avg. Loading – Minor Factor	% Variance Explained
Providing Core Customer Service	14	.57	.21	13.4%
Beyond Core Customer Service	6	.54	.15	6.5%
Follow Through	5	.61	.13	5.8%
Providing Information to Customers	6	.49	.15	5.6%
Coping with Difficult Customers/ Situations	4	.56	.15	5.6%
Being a Customer Service Advocate	5	.55	.11	4.8%
Organizational Support For Customer Service	4	.52	.12	4.5%
Dealing with Diverse Customers	3	.52	.12	3.8%
Supporting Your Coworkers	2	.72	.09	3.2%

Reliability

After eliminating some items, as described above, and after determining the factors using the resulting 49-item instrument, the survey was measured for internal consistency among its factors using Cronabach's alpha. Alpha is an indication of the proportion of the variance in a scale score that can be attributed to differences in the underlying construct. Table 2 presents these data.

The overall reliability was .94, with reliabilities for the sub-scales ranging from .55 to .90. An alpha above .70 is generally considered acceptable, although .65 to .70 may be considered minimally acceptable (DeVellis, 1991). Three sub-scales, *Organizational Support for Customer Service, Dealing with Diverse Customers* and *Supporting Your Coworkers* had alphas lower than .65. This is most likely due to the relatively small number of items in these subscales.

Conclusion

This study investigated the validity and reliability of an instrument to measure customer service competencies, and it provided cross-validation evidence of the **SERVE**^{TM} competency model presented by Russ-Eft et al (2000). In doing so, it followed the level of-rigor standards for competency modeling and job analysis studies set forth by Shippmann et al (2000).

Holton, Bates, Ruona, and Leimbach (1998) argue that such validation studies are critical for instruments used by HRD professionals. "With psychometrically strong instrumentation, HRD will be in a position to provide more definitive answers to questions. Without reliable instrumentation, researchers will be limited in their ability to arrive at conclusions and prescriptions" (p. 487 - 488). Although these authors were concerned about measuring transfer climate, the same arguments can be made for developing and validating instruments to measure job competencies.

Table 2. Cronbach's alpha for each factor.

Factor	Alpha	Number of Items	Range of Item-Total Correlations	Scale Mean (Std. Dev.)
Providing Core Customer Service	.90	14	.49-.72	6.24 (.55)
Beyond Core Customer Service	.81	6	.43-.68	5.60 (.89)
Follow Through	.78	5	.49-.66	5.63 (.98)
Providing Information to Customers	.75	6	.39-.57	6.07 (.63)
Coping with Difficult Customers/ Situations	.70	4	.45-.52	5.64 (.83)
Being a Customer Service Advocate	.74	5	.48-.56	5.54 (.96)
Organizational Support for Customer Service	.60	4	.27-.46	5.33 (.87)
Dealing with Diverse Customers	.58	3	.38-.41	5.86 (.92)
Supporting Your Coworkers	.55	2	.38	6.15 (.81)

The present study follows the recommendations of both Shippmann et all (2000) and Holton et al (2000) by supplementing the results of previous qualitative work using a critical incident method with a quantitative examination of the same concepts.

Limitations

All of the items in this instrument showed significant negative skew in the distribution of participant's responses. While this did not seem to cause difficulties for the analyses presented here, it may continue to be an issue for the reporting of scale scores and other results.

There are several possible explanations for the high responses to the items in this instrument. First, 622 (73%) of respondents reported having received customer service training prior to completing the questionnaire. The high proportion of respondents receiving training could account, in part, for the high responses. A t-test was conducted to determine whether participants with prior training had higher scale scores. The difference between those with prior training and those without was small, but significant, (t = 3.47, df = 814, $p<.01$). The mean scale score for those with prior training was 5.87, and 5.71 for those without prior training (on a seven-point scale). In one sense, this may present a limitation, in the sense that the data may have been affected by such difference. In another sense, this result may provide some additional evidence of validity in that it showed a significant difference between individuals who had had previous training and those who did not.

Second, the skills identified as important to good customer service have a certain degree of social desirability. Social desirability is a problem when one response is more socially acceptable than another or when a respondent tends to report "good things" about himself or herself (Edwards, 1957). In this situation, a respondent may choose the socially desirable answer rather than the one that most closely reflects his or her behavior. This is not to suggest that people are lying regarding their behavior; rather, they believe that they are following socially accepted norms and answer accordingly. The problem of social desirability may be more likely to arise when a questionnaire asks for respondents' perspective on their own performance only. Social desirability may be less of an issue when a questionnaire reflects an organizational perspective or a second–party perspective (e.g., when managers rate their direct reports and not themselves).

Re-framing the questions may help reduce the degree of social desirability in the scale. One option is to change the survey from the self-perspective to a group perspective. Such a change would ask participants to rate the practices of their customer service group as opposed to their own behavior. The respondents' beliefs about their own skill levels might be tempered by their observations of their coworkers. Another option would be to include a social desirability rating for each service item. Customer service items that show strong correlations with the social desirability scale would then be considered for exclusion. However, if there is, indeed, a strong element of social desirability in the underlying construct itself, then exclusion of these items may undermine the quality of the entire instrument.

Third, the study was undertaken with customer service personnel within the United States. We cannot be certain that the same results would emerge using personnel located in other countries and other cultures. This would require studies in separate countries and cultures.

Implications for HRD Research and Practice

Along with the work of Holton et al (1998), this study describes efforts to develop and validate standard instruments for use by HRD researchers and practitioners. Such studies can help other researchers as they examine competencies needed for specific roles or jobs within organizations, as well as other factors critical to the advancement of learning and performance within organizations. Furthermore, the present study provides an example of supplementing qualitative work in the area of competency analysis and assessment work with quantitative analyses.

The instruments from such quantitative analyses examining reliabilities and factor structures provide practitioners with measurement tools to enhance learning and performance in organizations. Well-researched instruments can play a vital role in determining initial knowledge, skill, and competency gaps. Such information can assist practitioners to focus on the needs of individuals, groups, and organizations.

In addition, such instruments provide critical tools in evaluating whether a specific learning and performance intervention resulted in targeted improvements. They can be used before and after training to determine competency improvements. They can also be used in post-training designs to ascertain whether competencies have reached a specified and pre-determined level.

Finally, by using these instruments in both needs assessment and evaluation efforts, further research can be undertaken concerning the psychometric qualities of the instruments. So, with the customer service instruments, for example, data can also be gathered from customers through customer satisfaction surveys. Then one could undertake concurrent validation efforts comparing the results from the **SERVE**™ instruments with the customer satisfaction surveys.

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Training Assessment Among Kenyan Smallholder Entrepreneurs

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The smallholder occupation includes on-farm and non-farm activities. The latter are by extension enterprises supplementing the small farm incomes due to population pressure and reduced productive farm holdings in Kenya, and are to raise smallholder farm earnings. One crucial factor is lack of rapid development for holders being less responsive to farm innovations, notably inadequacies in knowledge and skills. This work recommends that business counseling approach need be integral part of extension education for small farm enterprise management.

Keywords: Needs assessment, Entrepreneur, Management Skills

The term smallholder is interchangeably used with relative terms like small farmer and peasant in the African setting. Leonard (1977) in his research on reaching the peasant farmer describes small farmer and peasant as managers of their small individual holding of land for small scale agricultural production and off-farm services. One handicap he identifies is lack of rapid small farm development calling for relevant and timely dissemination of knowledge and instruction on small farm centered enterprises. According to Livingston (1981) non-farm activities simply supplement on-farm earnings. One major reason for the search for non-farm activities on the farm or away from the farm is in response to land shortage in areas of population pressure while in others it can as well be an indication of good income opportunities. Gundu (1985) study on agricultural information diffusion to smallholders in Kenya observed that the paid rural employment opportunities and rural entrepreneurial tasks off-farm are both male and female domain. As holders they combine both on-farm and off-farm activities. The varying educational level, off-farm enterprises and gender are indicators towards training identification and needs among smallholders Odeng (1989). Smallholder entrepreneurs have not been able to realize their full potential due to inadequate training in skills relevant to areas of off-farm occupation. Enterprenuers operate to support the smallholder farm incomes. Off-farm enterprises fail due to mismanagement and inappropriate knowledge and skills application. Farm enterprises have erratic operational tendencies just because small farmers need instant additional income. The success of off-farm enterprises is depended on having the required skills. These skills can be described simply as technical and managerial. It is therefore being argued here that the attainment of the right skills is achieved through proper training followed by the practice of the learnt skills. This research is aimed at identifying the training needs in order to improve human resource to meet the day today challenges of running and optimizing financially based off-farm activities. Calling for small farmer training presupposes provision of knowledge, information and allied skills to ensure proper management of off-farm enterprises.

Problem Statement

The hypothesis behind this work is that smallholders are potentially intelligent, interested in obtaining relevant knowledge, information and skills with keen desire to utilize them for their personal welfare and provide goods and services to themselves as a rural community. This study is therefore aimed at assessing the extend to which the need for knowledge, information and skills among small scale farmers can promote effective management of the off-farm enterprises. It is argued that the Kenyan smallholder entrepreneur ineffectiveness is due to inappropriate training packages, non identification of proper training needs and inadequacies in trainer capacities. It is apparent William (1980), Odeng (1989), ILO (1992) that training is a prerequisite for knowledge, information and skills transmission,

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necessary for achieving better management of the off-farm activities among the smallholders. The major bottleneck is Obura (1993) compounded by mismanagement of enterprises as may be revealed through lack of the necessary knowledge, information and requisite skills in running off-farm enterprises. Smallholders need to cultivate positive attitude towards training and have their training requirements spelt out before any business management training is imparted.

Theoretical Framework

This study applied a qualitative research data collection approach constituting mainly responses drawn from smallholders. The target group studied comprised of entrepreneurs. The focus in on rural development through extension education as means of informing, advising and training the smallholder on farm and off-farm activities. While focusing on rural development that constitute over 85 percent of smallholder activities, Supe (1983) concurred that rural development is the result of many interacting forces where education is one of them. His description of educational needs for rural development appears in four groups given as:

- General or basic education designed for providing literacy and primary education.
- Family improvement education designed primarily to impart knowledge, skills and attitudes useful in improving the quality of family life.
- Community improvement education designed to strengthen local and national institutions and processes through instructions on matters such as local and national government, community projects, etc.
- Occupational education designed to develop particular knowledge and skills associated with various economic activities and useful in making a living.

Supe (1983) identifies extension education as a method of education for rural based households outside the regularly organized schools for bringing out social and cultural development. Extension in this context is simply described as means to extend, to spread or disseminate useful information and ideas to rural people outside the regular organized schools and classrooms whilst education is the production of desirable changes in human behavior. Extension education is seen therefore as a program for people based on their needs and problems. It is basically designed to meet these needs and solve problems. It is a teaching and learning process striving to induce the following changes:

- Changes in knowledge or things known.
- Changes in skills or things done.
- Changes in attitudes or things felt.

Daham and Bhatnagar (1985) in their work on education and communication for development observed training to mean to educate a person so as to be fitted, qualified, proficiently in doing some job. Training includes education which aims at bringing a desirable change in the behavior of the trainee. This change, they assert that requires a change in knowledge, skills, attitudes, values, beliefs and understandings so that the trainee becomes qualified and proficient in communicating and performing certain jobs. Training through extension involves not only educating the rural people in determining their problems and methods of solving them but also inspiring them toward positive action.

The sessional paper No. 2 of 1992 on small Enterprises and Jua kali Development in Kenya, provides a policy framework for promoting small scale and Jua kali enterprise development in Kenya. The major policy framework set out by this paper includes:

(i) Providing direct assistance for management and entrepreneurial training and skills upgrading for individual entrepreneurs.

(ii) Disseminating information on market and appropriate technology

Jones (1998) summarizes micro enterprises access to training in Zambia as follows: 26% have had access to technical training (4 out of 10 have received their training through apprenticeships). Only 17% of women entrepreneurs compared with 38% of men are technically trained. 9.2% have received some business training (12% for men 6% for women). The surveys in both Kenya and Zambia also found similar positive relationships between training and enterprise profitability. The relationship between education and access to credit and the size of the enterprise, conducted by Oketch and Kisundu (1995) study on the demand and supply of small enterprises finance in Kenya done for the British Overseas Development Agency, found that there is a positive correlation between education of the owner and the size of the enterprise on the one hand and access to credit and non-financial services on the other. The Central Bank (1999), Yambo (1992), Williams (1980), ILO (1992) consider the constraint to smallholder entrepreneurs to be counseling of the entrepreneurs. Negative perceptions of the smallholder entrepreneurs on the basis of lack of tangible financial trace record, cases of illiteracy are thought to be the worst in credit management.

Research Questions

The research questions guiding this study are as follows:

- What is the distribution of holder enterprises on the basis of education levels?
- To what extend does educational levels show enterprise needs?
- What attitudes do smallholder need for enterprise operation?
- What knowledge and skill deficiency exist among smallholder entrepreneurs?
- What are the objectives of smallholder enterprises?
- What tasks do smallholders need to perform to actualize entrepreneurial goals?
- What is the right time for training?
- What training capacities exist for imparting knowledge and skills?

Methodology

The Study Area

The sample area selected for this study is Kakamega district. The district has very high smallholder population density and poverty in Kenya. Smallholder land ownership is between 0.1 to 11 acres on average household. Due to pressure of land and reduced land for cultivation, most people have opted for off-farm activities to supplement the on farm cultivation just to raise extra incomes to support the families. The district forms part of western province whose educational attainment of the small farm population not currently in full-time education indicates, Kenya Government (1981) 30.1% male and 39.6 % female had received no education. The 50 + years age group showed a no education picture of 37.4 % male and 46.6 % women.

Target Population

The target population for the study comprised of 439 smallholders registered as business operators at the district trade office. They form part of what Gundu (1986), Shibanda (1999) see as the rural majority but less informed and less educated requiring access to agricultural education, information, advice and assistance in order to improve their methods of production, marketing, service provision and management of off-farm enterprises. They are smallholders whose holdings do not exceeding eleven acres. The study assumes, Kenya Government (1981) definition of holder to mean a person or persons who have the control and ability to make decisions relevant to the agricultural activities on the holding. A holding means all the land and livestock used partly or completely for agricultural purposes where again a holder may in fact operate neither land nor livestock. The purpose of such holdings is to provide food purely for subsistence yet cash oriented activities are undertaken to supplement on farm earnings.

Data Collection, Instruments, and Procedures

The research techniques applied in aid of data collection include:

- List sampling by drawing samples in list sampling of the District Trade Development Office. This method allowed to select a random group of 439 people from trade office on details of registered business owners. The details given were mechanical since the names sampled were randomly picked up. The persons on the trade register had every equal chance of selection out of which 23 people responded. This constituted 5.2 % of the total population.
- Attitude scales showing how people feel towards certain activities.
- Knowledge and comprehension test to find out whether the person understand or can apply certain acquired knowledge in a given situation.
- Skill or performance rating used to determine the amount of skill attainment in doing certain activity.

The first stage of the study deals with the exploration of relevant data available from documents. Basically this constitute information contained in official government records available for scrutiny. Data gathered is basically from District trade development office. The following sets of documents are examined to provide relevant data; registered business files, business annual and monthly reports and entrepreneur course evaluation reports. The above documents generate information on educational background, average stock, number of employees, profit earned per month, business occupation, gender composition, business experience and monthly business sales.

The second phase of the study collected data through questionnaires and observation. The aim of this phase is to provide data based on respondents as well as to test data collected in phase one of the study. The formatted questionnaire instruments were administered to avail data from small farm entrepreneurs and the extension trainers and credit providing institutions. The small farm respondents generated information concerning the following; enterprise identification, business training provided, respondents personal details, management skills, business performance. The respondents from extension trainers / creditors generated the following information; trainer/credit provider, respondent details, training assessment in enterprise management, rating and trend in training needs.

Findings

Distribution of Enterprises on the Basis of Educational Level

Defined as follows: never gone to school / never attended formal school; lower primary / class 1 to 5; upper primary / class 6 to 8; secondary / form 1 to 6; post secondary / attended middle level college or university.

Based on data analysis on the distribution of enterprises on the basis of educational levels registered 1995 – 1999. During this period a total of 439 traders were registered. 48% of the small farm operators were of upper primary education being the highest category in trade registry. Followed by secondary level with 37%, post secondary 7%, lower primary 6% and zero educational level 2.5%. This shows a range of differing aptitude in knowledge application and understanding based on education factor.

Extent Educational Levels Reveal Business Training Needs

The educational background is assessed against the following business performance and growth indicators.

(a) *Distribution of Enterprises by Owners' Education and Monthly Turnover Ration*. Stock turn over ratio is defined as net sales over average inventory at selling price. Distribution of enterprises by small farms' education and monthly turnover ratio gives an idea on the stock management. From the data the highest number of respondents fall under stock turnover ratio class of 0.5 – 1. The highest frequency in percentage is noted in class 0.5 – 1 under secondary level of education. It is however noted that 61% of the respondents have a stock turnover of one or more times. This indicates that 39% of the respondents can not turn the stock once. This could be due to poor stock control, poor pricing or stiff competition. Slow stock turnover exposes stock to the risks of loss of stock and holding capital in stock. A high stock turnover could be due to very low stock level hence frequent purchases being made. This requires proper understanding of the smallholder operators.

(b) *Distribution of Enterprises by Education and Profit*. Data on distribution of stores on the basis of owners education and profitability shows that 50% of the no education respondents are in the profit class of 0 – 3000. The lower primary has a peak in the class 3000 – 6000 which is 47%. The upper primary has a peak in class 0-3000 with 25% of the respondents, while secondary has a peak in the class 15000 - 18000 with 25% of the respondents while post secondary has a peak in the class 15000 – 18000 with 33% of the respondents. The overall class is 3000 – 6000 with a peak of 22%. This points to the fact that with zero education the profitability from business are very low while at least with upper primary level the profitability improves substantially. The business profitability for zero and lower primary educational level is basically for survival and is within the minimum wage level. Educational level therefore has an influence over the profitability of the business.

(c) *Distribution of Enterprises on the Basis of Education*. Distribution of business occupations on the basis of education level shows that over 79% of the small farm operators run retail businesses. All the zero educational level operate retail businesses operators in upper primary, and secondary have a wider identification in business occupations as compared with lower primary and post secondary. This data implies that education level has an effect on the business occupation one operates. The level of education has an effect on the capacity to utilize or acquire technical skills.

Attitude in Entrepreneurship

From the data on the necessary behaviors which farm operators need to respect in enterprise management, the following is ranked according to the percentage of respondents; keep proper books of records (1) 100 %, consult trade officers (2) 95 %, concentrate on the business (3) 87 %, seeking for information (4) 77%, and direct funds to better projects (5) 63%. This shows that keeping proper records is most crucial behavior in respecting small farm business operations and shows that consultation with trade officer's call for counseling and advisory service the time the small farm operator requires it.

Knowledge and Skills Deficiencies

The deficiencies small farm operators face in running their enterprises efficiently. Under the survey 23 respondents were administered questionnaires. Information on deficiencies of small farm operators shows that credit management is the main problem area with 32%, costing and pricing 28%, recording all things 27%, stocktaking 22%, identifying business opportunities 20%, marketing of good 18%, profit and loss 22% and budgeting 13% while managing credit had 2% of the respondents. This shows that entrepreneurs require training in working capital management, costing and pricing, investment decisions marketing of goods, profit and loss, record keeping time management and business planning.

(a) *Analysis of the Stock Turnover Ratio* - being net sales over average inventory at selling price. The data shows 48% of the respondents having stock turnover ratio between 0-1 only 8% has a turnover of one 2.5 –3. This shows that stock management could be poor or the businesses are under capitalized. This calls for training in working capital management.

(b) *Analysis of Return on Capital Employed* - being the annual net profit times 100 over total capital employed. The data shows that over 72% of the respondents have a return on capital employed ranging between 0 – 150% while 28% of the respondents have a return on capital employed ranging between 150% - 300%. It shows that the capital employed is dependent on the size of the business. This also affects the return on capital employed.

(c) *Analysis of the Cross Profit Ratio* - being gross profit times 100 over net sales. This shows that 75% of the respondents have a cross profit ratio of between 20 – 40% while 25% have a cross profit ratio of 0 – 20%. It shows that business involved in provision of goods and services give higher cross profit ratios than those involved in retailing.

(d) *Business Occupation in relation to Sex of the Operator*. The data analysis show that 70 % of the respondents were males while 30% were females. 84% of the males are in retail business as compared to 16% of females. Females have 64% in service related business as compared with 35% of males. It shows that females favor business occupations that add value to services and production as compared to males who prefer retail trade, general repair.

Objective of Small Farm Off-farm Enterprises

From the data on the objectives of small farm operators the ranking is as follows: To create employment for self and others is 93.3% of the total 60 respondents. This is followed by to provide goods/services to consumers with 88.3%, to earn profit / income is 83.3 and to get food is 65% pointing to the survivalist nature of the entrepreneurs. This shows that small farm operators basically set their business to create self employment, earn income and to provide goods and services to consumers.

Small Farm Tasks

Tasks that small farmer need to perform to achieve the goals of starting the business. Data on the tasks that the entrepreneur should complete to achieve the goals of starting a business through ranking shows that honesty is 1st with 96.7 % followed by keeping accounting records with 93.3 % and employ qualified people with 86.7 %, open early close late with 85 %, recognize opportunities 78.7; be persistent with 66.7 % and be master of business 58.3 % and market goods with 55 %. This shows that honesty, keeping accounting records, employing qualified people, opening at appropriate times, and recognizing business opportunities is important for the realization of the goals of starting a business.

Training Timing

What is the right time for training? Information on the timings for training points at training being provided at least after every 6 months, followed by credit procurement and lastly before starting business. Training after starting business is not ranked high by the respondents. The respondents do not consider the training after starting business to be very important, William (1980), KIE, K-REP, KIM (1991), Nelson (1991) and Yambo (1992) look at counseling as an option. The data also shows that traders do not require regular training this could be because it distracts them from running their business. The interpretation of timing shows that training should be well timed with consideration of the right time for training, in order to optimize on the business returns.

Capacities for Training

Assessment of the existing capacities for training to support small farm enterprises was conducted. A questionnaire administered to extension training / credit providers gives some insights on the existing capacities, rating and training packages for the small farm entrepreneurs.

(a) *Capacities*. The existing capacities of trainers reveal they hold either of the following qualifications; B.A (Econs), Diploma in Business Management and CPA II, Bachelor of Business Administration, Doctorate (Ph.D.) Enterpreneurship, Banking, Master of Business Administration, Bachelor of Arts (Economics) and Kenya Certificate of Secondary Education.

(b) *Training Package for Small Farm Operators*. All the training organizations administered with questionnaire had training package for small farm entrepreneurs.

(c) *Types of Training Offered*. Types and rating; business management 6, technical Skills 0, entrepreneurial Skills 1, motivational skills 1, policy procedure and credit management 1.

(d) *Adequacy of Training*. Out of the seven respondents, five confirmed adequacy of the training they provide. Four stated that the training is not adequate. However all the seven proposed addition of counseling to training. Five out of seven stated that the impact of the training was good while four stated it was very good.

(e) Rating of impact of training on enterprise management: Unknown 0, Not useful 0, Useful 6. Only six out of the seven organizations gave the rating.

(f) Specific behaviors of training on trainees in enterprise management. Positive 7, Negative 0, None 0. All the seven considered their training to have a positive specific behavior on the creditors in small farm enterprise management.

(g) *Most suitable training package for entrepreneurs*. (a) Business Management skills; book keeping, working capital management, profit & loss, business planning, investment in Business opportunities, networking and business linkage, basic contract law, costing and pricing, marketing and customer relations, business premises tribunal, weights and measures and business counseling. (b) Technical Skills; one respondent inducted that the small farm operators should be trained on technical skills.

(h) *Rating and trend in training needs 1995-1999*. The rating by the 6 organizations which responded indicated that there is an increasingly trend in provision and demand for training.

(i) *Organizational Performance*. The analysis of the organizational performance shows the organizations have not reached an optimum level in the provision of training to small farm enterprise operators management. The training / credit providers understand the small farm training needs and that the trainers have adequate qualifications, experience and are mature people. The training organizations have training package mostly in business management. However, 71% of the respondents consider the training they offer inadequate. They rate the training to be useful and have positive impact. The trainers have recommended a training package in business management. Despite the fact that the training organizational performance has not reached the optimum there is an increasing trend for training. This therefore requires proper identification of training needs so that the training is matched with the needs of the recipient.

Recommendation and Conclusion

This study recommends the need for business counseling as an integral part of extension education in small farm enterprise management. It reveals the importance of skills in business management and from business performance analysis given the views of the small farm operators and the extension training / credit providers. The following training areas have been identified, working capital management, identification of business opportunities and investment, book keeping and accountancy, business planning, marketing, human resource management, business networking and linkages. This can be evidenced through; giving professional advice to a client with a problem, facilitating of success, sharing of knowledge, helping people explore problems so that they can decide what to do about them, helps reinforce the benefit of the training through guidance on practical applications, the small holder operator can make suitable and sustainable business decisions. The identified business management skills deficiency calls for training at least after every six months. The educational level plays an important role in both the success of a business as well as the efficient use of the training provided. The operators with no education and lower primary are likely not to benefit from such training because they lack the necessary capacity and orientation essential for business growth. Their businesses are for survival. This category generates low profit and has a low stock turnover. While those with upper primary level and above showing receptive to training with profitable enterprise.

Contribution to New Knowledge in HRD

The study helps to isolate issues that prevent holders from utilizing their potential and achieving entrepreneurial objectives. It identifies business counseling as a training approach to apply as part of extension education for appropriate smallholder knowledge and skill provision in enterprise management. Core to this study is the extend to which the need for knowledge, information and skills among smallholders can promote effective management of off-farm enterprises. Spelt out are the knowledge and skill requirements, the tasks needed for enterprise performance, timing of training for the entrepreneurs and the status of the trainers. There is need for training that matches trainers and trainees. Applying otherwise wholesome training packages without taking into account the trainee needs may not be effective to the recipient smallholder. Smallholders may thus operate above their potential and capacities for self reliance, improvement in their skills, power of intelligence and development of desired attitudes and values required for business performance.

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Business-Focused Evaluation: A New Collaborative Model

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A case study of a business-focused evaluation model is presented. This was developed as part of an organizational development intervention for a global semi-conductor company. The value of the model is assessed against three principles (concerning collaboration, joint ownership and integration) drawn from client and provider needs and from current thinking in evaluation research. Findings from the study highlight significant benefits to the Company and participants, and provide learning for future use.

Keywords: Evaluation, Strategic, Integration

Debate in the field of evaluation research and methodology indicates a number of key issues that are central to evaluation utilization. These include a drive towards interactive and participatory interventions that develop relationships with stakeholders and attend to the needs of those who are being evaluated and those who are evaluating (Gregory 2000; Pawson & Tilley 1997). Furthermore there is concern that interventions recognise the importance of how the evaluation process is managed as well as addressing the outcomes of the evaluation enquiry (Patton 1997, 1998; Kaghlan et al, 1999). Both of these issues link into the concept of evaluation as an intervention integral to organizational learning and as part of an organizational development process that aims to influence strategic decision-makers (Owen & Lambert 1995; Preskill & Torres 1999a, 1999b; Torres et al, 1996).

Current literature appeared to offer little in the way of models and tools that reflect these current issues and that could be used to evaluate a University led intervention. This paper presents a case study outlining the design, development and implementation of a business-focused collaborative model of evaluation that aimed to provide a link between research and practice and academia and industry. The paper begins by introducing the context and aims of an organizational development intervention requiring evaluation. This is followed by an exploration of how an evaluation model has been designed around key principles identified by the organization (Zetex plc) and Lancaster University and drawn from current evaluation research. The data analysis and findings from use of this working model are presented. The extent to which the model supported the key design principles is discussed and a number of areas for improvement are suggested. The paper is concluded by summarising the key learning from the study.

Context of organisational development intervention

Zetex plc is a global semi-conductor company with headquarters in the North West of England. In 1998 the company worked with Lancaster University to design a management development programme that would develop middle and senior managers. The programme was designed to run over one year on a part-time basis, comprising 4 modules of 3 days and leading to a Lancaster University Certificate in Management. Participants attended four tutorials and produced four assignments linked to each module, and a final Personal Reflections assignment that aimed to reflect on their learning processes. In addition participants worked as part of a team within action learning groups on a business-focused project that spanned the duration of the programme. The Company initially recruited two cohorts of 16 managers to the programme. One cohort started the programme in October 1998 and the second cohort started in February1999.

The Company and the University were interested in evaluating the intervention in terms of learning, that is learning for individuals, the organization and the University. It was agreed therefore that an evaluation research project would run alongside the first two cohorts of students with the key aims of assessing the impact of the programme on the business, and assessing the impact of the programme on the individual.

It was hoped that addressing these two organizational aims would provide the University with information to address academic concerns mainly, to provide an understanding of how learning impacts upon the organization and individuals thereby enabling further development and promotion of the programme. A further wish was that the

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project would increase understanding of evaluation within an organizational context and would act as a test case for including evaluation research in other programmes.

Methodology Rationale

Both the Company and the University had key principles that they wanted to underpin the evaluation. The Company wanted an approach that would clearly link into their strategic measures, and that would enable the identification of specific and tangible, actual and potential benefits to the Company. The University wanted an approach that was integrated with the organizational development intervention and enhanced the learning for participants. It was therefore agreed that there were three basic principles that would underpin the approach used to evaluate the Zetex management development programme. The three principles were:

Principle 1. The evaluation was to be developed collaboratively by the University team (evaluation researcher and programme director) and the Company (board members and senior managers) and, crucially, the students on each cohort. This linked into previous research by Stead at Ford Motor Company (1997) that showed that programme participants are the critical link between University learning processes and business outcomes.

Principle 2. The evaluation was to be a jointly owned process between the University and the Company and therefore would have the capacity to deliver longer term sustainable benefits to both parties. This principle draws on research into participatory and collaborative inquiry and evaluation (including Gregory 2000; Guba & Lincoln 1989; Heron 1996) and work by Owen and Lambert (1995) that argues that evaluators need to work interactively rather than at a distance and that evaluation needs to strive towards informing the 'mental models' of leaders and key decision-makers within organizations.

Principle 3. The evaluation was to be an integral part of the learning process within the programme, and should link into existing strategic measures used by the Company. This principle is supported by Preskill and Torres (1999a, 1999b) within their concept of evaluative enquiry, that argues the need to develop evaluation as "an integral on-going process that contributes to individual, team and organizational learning" (1999b, p. 93).

There are many models and techniques to draw upon in the field of evaluation (for example, see Brown & Seidner, 1998; Kirkpatrick, 1998), however there appeared to be little that provided a fit with the three principles outlined above. Preskill and Torres (1999a, 1999b) identify seven processes at the heart of evaluative enquiry that aim to facilitate learning for individuals, teams and organizations and that might be used as a framework. However, they recognise that evaluators will need to develop new tools if 'they wish their work to contribute significantly to the future success of organizations' (Preskill & Torres, 1999b, p. 93). This management development programme afforded the opportunity to develop new tools that would aim to work within the concept of evaluative enquiry as outlined above and that would suit the specific needs identified by the University and the Company.

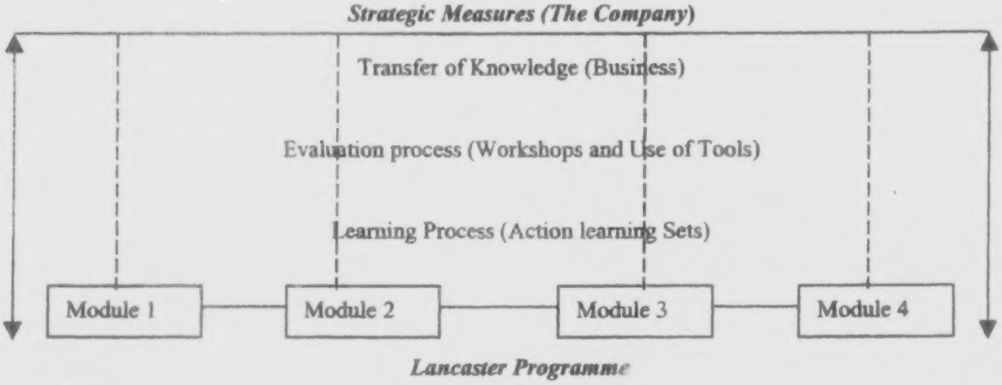
Evaluation Design.

As part of the management development programme students were asked to devise, develop and deliver a business project that would bring together their learning from each of the modules and that would provide a vehicle for using their learning in the workplace. It was decided to use the business projects as a focus for the evaluation research for two key reasons. First, participants were expected to work on projects of benefit to the Company and this then encouraged explicit linking into Company needs. Second, participants were expected to develop projects that reflected their learning from each of the programme modules thereby enabling a more explicit linking of application of learning to work. The evaluation would aim to take this critical reflection of learning and connect it to existing strategic measures and key business areas within Zetex plc. This qualitative approach aimed to; help students review their application of learning throughout the programme and project work; specify actual and potential achievements by students, and; provide a framework to review progress on a longer term basis. Figure 1 shows how the evaluation process was integrated within the organizational development intervention.

With broad principles in place and a key learning focus within the programme for the evaluation, programme students and Zetex board members and managers were invited to a Project Launch Workshop at the Company. The workshop was facilitated by the programme director and evaluation researcher as the first part of the evaluation process with the aim of developing evaluation tools for the programme. It aimed to do this by identifying and agreeing what generic factors are essential for projects to be deemed successful for the Zetex business, and the development of Zetex managers. The workshop also aimed to identify participants' hopes and concerns in undertaking the projects, and to clarify the purpose of the projects and create a pool of potential projects.

Working in mixed groups participants, managers and board members flagged up hopes and concerns and identified success factors relating to projects that were then divided into two broad categories. These categories were labelled hygiene factors and critical success factors. Hygiene factors were those factors that have to be in place before a project can proceed such as; 'needs to have clear objectives and goals'; 'projects should address a high leverage issue'. Many of these factors related directly to hopes and concerns, for example a hope that the project would be of value to the business, a concern that the projects would have senior management backing. Critical success factors were those factors deemed successful to the Company and to the participants' development. Critical success factors included areas such as; 'improved communication', 'add value to the business'. A pool of potential projects was then created by asking participants to place ideas within one of the Company's four key business areas; strategic, operational, business processes and innovative. These were later circulated so that participants could work on them to produce project proposals.

Figure 1. Organizational Development Intervention


Strategic Measures (The Company)
Transfer of Knowledge (Business)
Evaluation process (Workshops and Use of Tools)
Learning Process (Action learning Sets)
Module 1
Module 2
Module 3
Module 4
Lancaster Programme

Evaluation Tools

The hopes and concerns exercise and the hygiene and critical success factors identified at the workshop were used to develop three tools;

The *Project Checklist* was designed from the identified hygiene factors to set the context for the application of learning to the workplace. Project teams used the checklist to ensure that their project had the appropriate characteristics in place before proceeding. The project checklist included questions that project teams needed to consider, for example 'will your project be easily applicable to the business?' Once project teams had completed a checklist, both the Company and the University considered and agreed the proposal. The project checklist was not designed as an evaluation tool but was key to the evaluation process in that it enabled participants to take ownership of the process and to be clear about what they were aiming to achieve and its relevance to the business.

The *Critical Success Factors Map* (CSF Map) as shown in Figure 2 was designed to incorporate the ten broad critical success factors identified at the workshop. This map formed the core of the evaluation process. It aimed to enable participants, the Company and the University to assess the impact of projects upon the Company and upon team and individual learning, by mapping actual and potential benefits. Actual benefits were those that came as a result of the project and could be quantifiable and tangible, for example cost savings or a new product, or intangible, for example improved morale. Potential benefits were those that the project team anticipated as a result of the project and could be quantifiable and tangible, for example increased efficiency, or could be intangible for example, better image. It was expected that benefits would be different for each project and that not all project teams would be able to identify benefits relating to all critical success factors.

A *Personal Benefits Matrix* was the third tool. It aimed to assess the impact of learning upon the individual and included two broad 'hopes' identified by participants at the workshop. These hopes were 'greater awareness and development', and 'gaining new managerial skills'. The matrix was a simple listing of students' benefits and insights from the Personal Reflections assignments against the identified hopes.

Figure 2. Critical Success Factors Map

CRITICAL SUCCESS FACTORS:	ACTUAL BENEFITS	POTENTIAL BENEFITS
HOW WILL THE PROJECT – 1. Add value to the business in the short to medium term? 2. Have potential for impact on the business over the next 3-5 years? 3. Enhance customer relationships (Internal/External)? 4. Mobilise commitment and support from within the Company? 5. Demonstrate communication across boundaries within Zetex? 6. Provide opportunity for influencing/networking throughout the management of the Company? 7. Demonstrate the effective management of team performance? 8. Demonstrate the opportunity to test out the 'Lancaster Learning' in a work context? 9. Offer the opportunity for experimentation and innovation? 10. Create a learning environment where change is embraced?		

Data Collection and Analysis

Participants collected data for the CSF Maps in self-managed action learning sets. As part of their project work, project teams met regularly in self-managed action learning sets to reflect, plan and talk through and resolve issues concerning their project. Each cohort of 16 participants had three project teams, thus six project teams in total. The CSF map was introduced to participants as a way of critically reflecting on their learning at regular intervals. Each project team completed a CSF Map at the start of each project and provided a final completed version for the evaluation research following project completion. The map was completed by specifying actual and potential benefits from each project for each of the identified factors. Project teams also used the CSF Map as an aid to developing their final project presentation to provide evidence of how their project had benefited the company. The Personal Benefits Matrix was completed by the research team for each cohort at the end of each programme by identifying and mapping key benefits and insights from the Personal Reflections assignments completed by all participants. The six project teams are detailed in Figure 3.

Figure 3. Project Teams

P1 Evaluate and review group purchasing process P2 Understand why 'crash' teams succeed P3 Identify weaknesses in human communications P4 Assess methods of budgeting and re-forecasting	P5 Address cultural and technological communications problems P6 Explore how working practices constrain productivity, efficiency and creativity

Information from the Critical Success Factor Maps (CSF Maps) and the Personal Benefits Matrices of both cohorts of participants were analysed by linking into 8 broad areas that corresponded with existing Company business areas and strategic measures, as shown in Figure 4. The findings were then fed back to the Company and programme participants through a workshop where participants, board members and managers were asked to comment and add to the findings. Clearly there was an overlap between projects and areas, and the findings below aim to draw out some of the more salient examples. For many of the project teams their work was the opportunity to test out new ideas and learning and so represents the start of potential projects that could be carried forward by the Company. This inevitably means that there are more identified potential than actual benefits to the business. The findings also include data drawn from the Personal Benefits Matrices.

Figure 4. Areas of Analysis

Business Areas	Strategic Measures
Strategic	Financial
Operational	Customer
Business Processes	Internal
Innovative	Learning and Growth

Findings

Business Areas

Strategic. Projects within the strategic area were defined as those projects that related to future business strategy or would impact on the development of new strategy. An example of actual benefits in this area is P5's work of an identified strategy for improved global teamworking to include virtual teams. P6 piloted a flexible working system with the potential benefits of more efficient use of staff time and reduction of staff turnover.

Operational. Projects within the operational area were those that related to Company operational activities, for example systems improvement. A clear actual benefit is P3's development and implementation of a new product idea handling system drawing together managers from across the Company. Potential benefits include P4's recommendations to improve existing budgeting procedures with the introduction of cross company sessions to clarify and identify budgeting information needs for new managers.

Business Processes. These were projects that related to key business processes within the Company for example communications. All of the projects have benefited Business Processes in that they have been working in cross boundary teams and have been researching in different parts of the Company. A further benefit in this area would include the potential impact on customer and supplier relations and reduction in time wastage with the implementation of an e-commerce purchasing system piloted by P1.

Innovative. These were projects concerned with experimentation and new ways of doing things, for example design of a new system. All of the projects fitted into this category. For example new ways of working include P1's work on the development of e-commerce, P2's teamworking practices, P4's work on budgeting and P6's investigation of flexible working practices. New systems development includes P3's development of a product idea handling system and P5's work on an intranet employee directory.

Strategic Measures

Financial. This included projects impacting on the Company's financial measures for example, increased cost revenue. Projects in this area were only able to anticipate financial benefits at this stage. For example, P3's new product idea handling system anticipates increased orders and revenue when implemented. P6 anticipate reduced time to market with the implementation of more flexible working practices and cost savings with reduced staff turnover.

Customer. These were projects that impacted on internal and external customers of the Company. Actual benefits have been evidenced by all the projects in that they have become more efficient at team-working, and they have learned how to work inter-departmentally. P1 have improved supplier relationships by working with suppliers to develop a new purchasing system. P5 anticipate improved global communications including customer and supplier relationships with recommendations for virtual teams.

Internal. This category included benefits to internal systems and processes. Actual benefits evidenced by all projects include reduced inter-departmental barriers, increased business understanding and improved internal networking as a result of project teams working across departments and functions to develop their projects. One specific example is P4 who have improved relations between finance and its customers by investigating ways of developing more efficient budgeting procedures. P2 and P5 focused particularly on Company team development and global teamworking issues, and potential benefits here include a more harmonious workforce and improved employee productivity.

Learning and Growth. This included benefits to the Company and individuals, for example use of skills to effect change, and included data collated from the Personal Benefits Matrices. In this area there have been a range of actual benefits, evidenced by all teams including improved team management skills, development of new ways of working, use of models and theories from the programme to promote and effect change, and increased willingness to learn and change. Individuals believe they have benefited greatly from working on the projects in their learning as part of a team, and in their personal development. Examples cited include increased confidence, a broader and more strategic outlook, improved management skills and the acquisition of relevant and useable theory and models.

Discussion

While the findings clearly show evidence of application of learning from the programme to the workplace, to what extent has the model enabled the initial aims of the evaluation to be met, that is to assess the impact of learning upon the organization and on individuals? Also to what extent has the evaluation model supported the three methodological principles determined during the design phase, and what suggestions does this raise for further use of this model?

Initial Aims. The findings from the completed CSF Maps detail a range of actual and potential benefits from the participants' project work to the organization and to groups and teams within the organization. The data also shows that these benefits can be related to Company strategy and have particular relevance in identified business areas. Data from the Personal Benefits Matrices indicate that learning has impacted upon individuals both personally and professionally. However the approach raised two issues concerning the aims. First, the collated data from the CSF maps offer more evidence of potential benefit than of specific actual benefit. This is not necessarily problematic or disappointing in that it does reflect the nature of the programme. For example many of the projects undertaken were concerned with development of innovative systems and procedures that were not implemented by the end of the programme and would require further detailed project planning. Therefore it is more probable that actual specific and tangible benefits of a project may not be evident for some time. This would then suggest that if the true benefits of the learning programme are to be made visible, a longer term approach to the evaluation intervention is negotiated with the Company. Second, examples of benefits provided by participants were not always detailed enough to provide clear evidence. This issue identifies a need for greater facilitation of the process and calls for increased integration of the evaluation process with the learning programme. This issue is addressed in more detail below.

Principle 1: A Collaboratively Developed Process. The development of the evaluation aimed to be collaborative and to include the University team, senior Company representatives and the participants. In practice the development occurred as the result of the University team managing a number of collaborative relationships and development events across the three stakeholder categories. For example the University took the lead in working with the Company to determine underlying principles and the key focus within the learning programme for the evaluation. The University facilitated a workshop for the participants and the Company to identify critical success factors and areas for the Personal Benefits Matrix. Having a clear understanding of which party was to manage and facilitate the collaborative relationships worked particularly well in the start up phase where there was commitment to getting the process up and running and an urgency to meet programme deadlines. However, collaboration became more difficult to achieve after the initial start-up when there was less urgency and focus on evaluation. In terms of developing the evaluation process it meant that some key steps were missed. This included taking the developed tools back to participants to check clarity and understanding from their point of view as product users. While this would have incurred extra time and cost in the start-up phase, this could have made a crucial difference to the detail and specificity of the data obtained.

Principle 2: A Jointly Owned Process to Deliver Long Term Sustainable Benefits. The initial workshop where participants and the Company worked together to identify project ideas, hopes and concerns and critical success factors, set a strong foundation for joint ownership of the evaluation process. It made explicit the link between the programme, the organization, the project teams and the individual, and it clarified purposes and aims of the projects. As in the development of the evaluation process the commitment to joint ownership can be seen to hinge upon clear management and facilitation of the process. This is particularly evident from the way in which the evaluation continued. Participants worked on projects in action learning sets and were expected to use the CSF Map as a self-managed reflective tool. The data collation process indicated that a more interactive stance with participants in managing the process throughout the programme duration would have provided greater detail and clarity of data as well as dealing with any issues about the evaluation as they arose. This would also have avoided the need for the researcher to try and clarify points and add detail at the end of the process. The need to actively manage joint ownership is further highlighted by the issue of feedback. It had been agreed at the programme start-up that the University would feedback to the Company through reports and a final workshop. However while the nature of the feedback had been clarified, the way in which this was to be managed and the purposes of the feedback had been given less attention. This meant that the Company was disengaged from this process and therefore the final workshop acted as an information giving session rather than as an organisational development intervention.

Principle 3: Integral to the Learning Process and Linking into Company Strategy. The approach of developing the evaluation tools collaboratively and using the CSF Map as a basis for critical reflection within action learning sets proved very successful in linking the learning, the evaluation and the assessment into the business. The explicit link between learning and Company strategy was reinforced by analysing the data within the Company's key business areas and strategic measures. It was felt that more learning could have been gained by the Company and the participants by linking the evaluation process more tightly into the learning programme and in particular into the assessment process. For example the CSF Map as a critical reflection tool could act explicitly as a preparation for the Personal Reflection assignment where participants are asked to reflect on their learning and what has been of most value to them. A closer link into assessment might also achieve greater joint ownership and developmental collaboration, in that the evaluation process becomes more visible throughout the programme duration and must be attended to as an ongoing process.

The pilot of this evaluation approach also highlighted the need to develop a more collaborative and integrated way of assessing the impact of learning upon individuals. Although the criteria for the Personal Benefits Matrix were developed at the initial workshop by participants, the matrices were completed at the end of the programme by the University. This tool was therefore not integrated into the learning process, and did not have the same level of ownership as the CSF Map. Interpretation of the data from the CSF Maps showed that many of the benefits to the organization were also benefits to the individual for example, 'improved team and management skills'. This suggests the potential for including criteria for individuals in the main evaluation tool, thus linking the whole process more clearly into the learning programme. In addition, the inclusion of criteria targeted at individual development as well as organizational development would provide a more holistic and integrated focus for critical reflection by attending to team concerns (the project), personal development (benefits to the individual) and the organization (benefits to the Company).

A final workshop at the end of the programme presented feedback to the Company and participants. While the workshop explored the findings from the data there was limited exploration of how further development might continue. The close proximity of the workshop to final project presentations and final completion of the CSF Maps suggests that a workshop might be better placed some months after the end of the programme. This would enhance the potential for long term sustainable development by providing a focus for review of developments. It would also give time for some of the learning and development to be embedded within the organization, independently of the learning programme.

Conclusions

The development of a new business-focused collaborative evaluation model has brought a number of major benefits including:

- Identification of specific and tangible, actual and potential benefits to the Company.
- Identification of benefits to the individual
- The articulation of business benefits relevant to business performance measures
- Provision of a reflective review process and review mechanism for the organizational development intervention.
- The opportunity for the University to trial a new evaluation model

The findings have shown that for Zetex the business projects have brought key benefits to the organization and to individuals particularly in the development of new ideas and systems that could potentially have a long term and sustainable impact upon the Company. While many of the benefits specified are potential benefits there are a number of clear actual benefits particularly in terms of learning for the business and in terms of developing improved communications and internal relations within the Company. Of particular interest is the number of innovations developed and piloted through the business projects with the aim of improving Company productivity, technology and market share. The findings also show that individuals gained enormously from being involved in the development of business projects. This increased confidence and self-esteem has had a beneficial effect in the workplace in terms of feeling more able to make decisions, to suggest improvements and to carry them through.

The evaluation process has aimed to be a collaborative and jointly owned process between the university, the Company and the participants. It has also aimed to be integral to the learning process and to link into Company strategy. Overall the pilot has been successful in achieving its aims and has identified some key learning points for the research team and highlighted a number of areas for improvement to the overall process.

The pilot has provided the opportunity to trial a new evaluation model linked into current evaluation research thinking. This has reinforced the need to attend to process both in how process is managed with other stakeholders in the initial start-up and in the ongoing development phases. Attention to process management has also been shown to be crucial in how participants work with the evaluation within the organizational intervention, for example having an opportunity to check understanding, and using the evaluation process as a learning tool. Working within a joint owned process has also raised the issue of commitment. For example, the pilot has indicated the need for stakeholders to think beyond the evaluation to how tools, frameworks and processes can help continued development within the organization. There has also been a clear indication from the pilot that there is potential in adding to the learning from the evaluation and adding to the value of the programme by linking this approach more tightly into the assessment process.

In conclusion our learning from this evaluation research has developed the basis for a strategic approach to evaluation as part of a learning and organizational development process. The evaluation model is now being refined and developed across a range of work-based and academic qualification programmes within Lancaster University.

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Challenges in Measuring and Evaluating Diversity Efforts in HRD

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This article examines the challenges faced by practitioners and scholars interested in evaluation and measurement of diversity efforts in organizational contexts. An organizational systems model illustrating the diversity related interchanges between an organization and the macro environment are considered. The challenges to measurement and evaluation due to the latency of the diversity, performance and performance improvement constructs are examined.

Keywords: Diversity, Evaluation, Performance Improvement

Practitioners and researchers are currently in pursuit of greater understanding regarding the impact of diversity and diversity management practices on organizational performance. In the interest of performance, global or multinational corporations frequently develop strategic approaches to enhance the likelihood of success in expanding market share among an increasingly global community of customers (Albert, 1994; Dass & Parker, 1996). Recruitment, hiring and retention of a diverse workforce are essential for organizational success in an increasing number of localities and industries. Since the late 1980s, many organizations have engaged in a response to workplace and marketplace diversity through initiatives focused on the management of customer, supplier and employee diversity (Kossek & Lobel, 1996). Regardless of the approach to diversity, organizations are engaged in developing more specific knowledge regarding the measurement of outcomes of diversity efforts and how they might be improved (Wheeler, 1996).

Purpose of the Paper

This paper explores the question: What are the current challenges to measuring the effectiveness of organizational diversity efforts? The exploration of this question will be accomplished through a review of the literature, description of current organizational practices associated with diversity efforts and an analysis of related approaches to measurement and evaluation. The limitations to measuring and evaluating the effectiveness of diversity efforts will be explored at the organizational systems level.

Defining Diversity

Many organizations have adopted definitions of diversity that are broad in scope (Wheeler, 1996). "One of the most powerful concepts underlying successful diversity initiatives is a broad, inclusive definition of diversity" (Hayles & Russell, 1997, p.11). Broad definitions extend beyond a categorization system centering on race, gender, age and disability to include a variety of differences. Thomas (1999) emphasizes that definitions of diversity should not focus exclusively on minorities and women in the workforce, but instead should include "any collective mixture characterized by differences and similarities" (p. 50). Although many organizations maintain a broad definition of diversity, communication and practice often focus more narrowly on categories associated with equal opportunity employment (Thomas, 1999). For the purposes of this paper, the definition of diversity will be the mixtures of individual characteristics in the context of an interdependent human system whereby associated similarities and differences or perceptions of similarities and differences influence norms, behaviors, interaction, and performance. The term diversity effort will be used to describe an activity designed to support the definition and diversity related goals for an organization.

Conceptualizing the Forces Influencing Organizational Diversity Efforts

Johnson (1995) found that over seventy percent of Fortune 500 companies either had or were planning diversity efforts. The following four forces can be identified as strong influences on United States and global diversity

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efforts: diversity action, diversity inquiry, diversity knowledge, and diversity infusion. The concept of diversity forces relates to a collection of events that influence organizational decisions to engage in diversity efforts. These diversity forces are defined at the macro systems level and work across systems, influencing and being influenced by the components of the system such as organizations, groups and even individuals (Jacobs, 1989; see discussion on systems theory below).

Diversity action is any activity, program, law, policy or process that influences collective perception and behavior regarding similarities and differences within human systems. Diversity inquiry is the act of examining the existing collective process as it pertains to the normative, behavioral and perceptual influences of similarities and differences in a human system. Diversity knowledge is the insight gained individually and collectively that influences reasoning, interpretation, planning and action within a human system. Diversity infusion is the ongoing introduction and integration of persons into a group, organization or community or the development of awareness of underlying characteristics resulting in increased explicit heterogeneity of a human system.

Diversity action is associated with diversity related legal parameters for organizations, protests against organizations perceived to be discriminatory, and celebrations of ethnic or cultural identities. Diversity action is evidenced in the workplace and the marketplace (Cox, 1994). As diversity awareness in organizations has increased, so has diversity inquiry that involves organizations becoming active in researching specific market trends, consumer demographics, and potential for increasing new demographic market segments. Organizations also responded to customer and worker inquiry regarding organizational behavior and commitment to diversity (Wheeler, 1996). Political campaigns, organizational advertising and public service announcements began to focus on diversity. Increases in related activity have produced greater interest in diversity knowledge. Public and corporate interest in diversity sparked the publication of numerous books, articles and videos along with extensive media coverage of diversity issues. The increased focus on diversity led to training that increased diversity knowledge (Hanover & Cellar, 1998). Changes in organizational openness to diversity issues and the introduction of larger numbers of persons with visible differences contributed to diversity infusion. This influx of new people increased heterogeneity of organizational membership (Judy, 1997). The culmination of macro environmental forces associated with diversity led to multifaceted organizational approaches to addressing diversity issues among many organizations (Kormanik, Krieger & Tilghman, 2000).

Diversity efforts have been tied to organizational goals (Wheeler, 1994). "Practitioners agree that multiple elements are essential in the process of creating an environment that values diversity. No single approach is sufficient" (Wheeler, 1994, p. 21). The reason for a broad approach to diversity efforts is that the issues or drivers are too complex. In a study of diversity efforts in several large corporations, Wheeler (1996) identified six key areas of emphasis including: communication; education & training; employee involvement; career development and planning; performance and accountability; and culture change. These areas suggest the possibility for a systematic approach. "A systematic approach that addresses issues at multiple levels through planned stages with continuous reinforcement over time is characteristic of diversity pioneers" (Wheeler, 1994, p. 21).

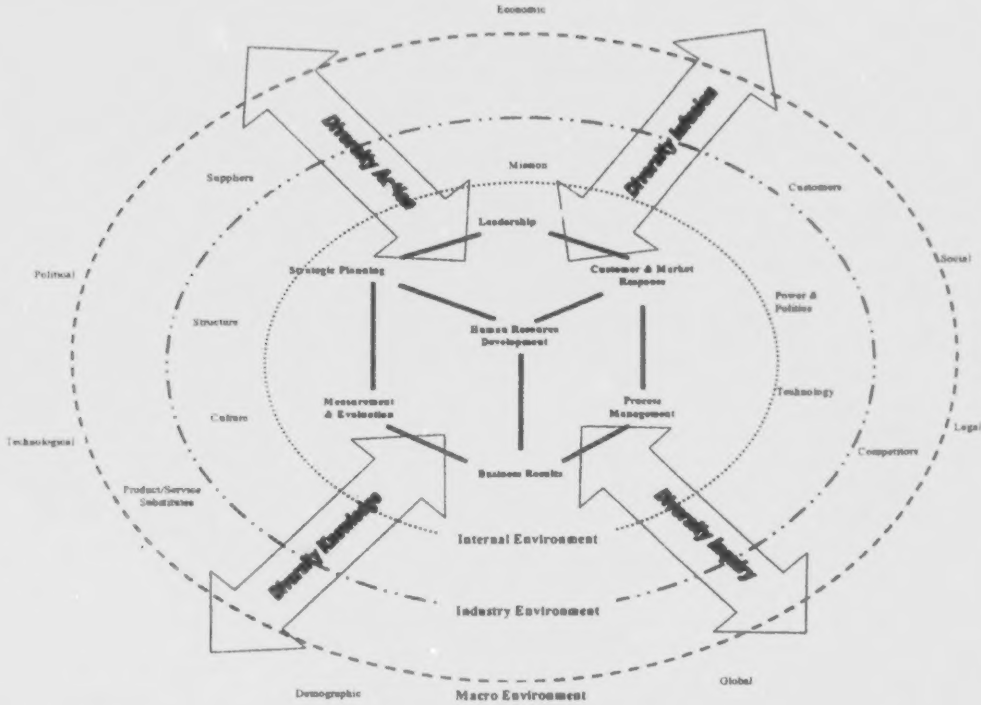
An Organizational Systems Model for Diversity

The first part of the systems model below (depicted in the cube formation at the center) represents seven key organizational practices in alignment. The cube is situated within the permeable internal environment of the organization. Because the model is located in a naturalistic environment, alignment and realignment are ongoing. The lines representing the edges of the cube do not dominate the relationships between each element. Rather there is interchange between the permeable walls of the cube, so that each practice area influences the other, though not necessarily in a proportionate manner. Although every organization is unique, these core practice areas must be addressed to one degree or another in all organizations. Ineffective management of one or more areas, due to lack of systematic maintenance results in the organization becoming misaligned.

The core practices making up the cube are modified from the Malcolm Baldridge Award (George, 1996). To align the practices, measures must be derived and monitored. Alignment is important to the success of organizations, but often difficult to accomplish. Although alignment may not guarantee organizational success, misalignment is problematic (Semler, 1997). The model represents an organization striving to maintain alignment between key areas of practice. The organization system uses evaluation, measurement, planning and readjustment in an ongoing attempt to stabilize itself.

The second part of the model represents the macro system environments and includes the internal organizational, industry and macro environment. Permeable lines signify the interchange between these environments. The macro environmental features that may influence the industry and internal organizational

Figure 1. A Diversity Focused Organizational Systems Model


Economic
Diversity Action
Mission
Suppliers
Customers
Leadership
Social
Political
Strategic Planning
Customer & Market Response
Power & Politics
Structure
Human Resource Development
Technology
Culture
Measurement & Evaluation
Process Management
Legal
Technological
Competitors
Business Results
Product/Service Substitutes
Diversity Knowledge
Diversity Inquiry
Internal Environment
Industry Environment
Demographic
Global
Macro Environment

environment are global, demographic, technological, political, economic, social, and legal factors. Industry environmental features include: competitors, product and service substitutes, suppliers, and customers. The double tipped arrows depict diversity forces. The arrows represent the dynamic interchange occurring across all levels of the system. Organizational responsiveness to the diversity forces as they permeate the organization impacts personnel, policies, new issue related insights, and questions. The organization in turn initiates interchanges that influence the industry and macro environment.

The three sections described and depicted above represent an open system where permeable boundaries allow for a constant state of interaction. These dynamic interchanges demand that the organization make ongoing adjustments to diversity forces. The interchange may be viewed as providing challenges and opportunities in the organization. The organizational reaction to the environment is often dependent on the information gathered through evaluation or measurement. Additional information may provide an opportunity for the organization to define interchanges with diversity forces as an opportunity.

Awareness of existing diversity issues within the organization obtained through diversity inquiry and knowledge combined with the interactions within an increasingly heterogeneous macro system present new challenges. The organization is positioned to maintain short and long term goals in the face of conflicting stakeholder interests. For example, managers may be expected to meet the demands of shareholders for return on investment, customers for quality and affordability, employees for fair wages, and communities for pollution control (Dass & Parker, 1996). The fact that organizational stakeholders at all levels of the system rarely agree is combined with the uncertainty that "investment in diversity" is a profitable strategy. At the same time, the organization has an opportunity to influence the industry and the macro environment with regard to diversity actions such as policies regarding supplier relationships or the creation of products addressing a certain segment of the available market.

Organizational Systems Theory in Measurement and Evaluation

Argyris and Schön (1996) have emphasized the importance of systemic approaches to organizational planning and evaluation through their work on organizational learning. There is limited available scholarly literature regarding diversity at the organizational systems level (Hayles & Russell, 1997). Dass and Parker (1996) developed an open systems model that represents the permeable borders between organizations and their macro environments. The model represents the open systems environment interchange that occurs between the industry environment, and the organizational environment. According to Dass and Parker, organizational members must be aware of both internal and external concerns associated with diversity in order to be in the best position to add value and to achieve a long-term strategic advantage for the firm. Strategic management is important for ongoing and flexible processes in which organizational leaders define organizational mission, set goals and priorities at various levels, and develop and implement means to achieve them.

From the practitioner literature, the Griggs (1994) model focuses on "systemic human resources and management development challenges". This model is segmented into six parts including: total quality, change, leadership, productivity, relationship, employee participation, and new work formats. The model provides an opportunity for the understanding of various linkages and ways in which a business environment is impacted by diversity. Hubbard's (1997) "Diversity 9-S Framework" (strategy, structure, systems, skills, staff diversity, style, shared values, shared vision and standards) utilizes an approach to measuring organizational diversity efforts. Although systems theory is not the explicit focus, the stated intention of the 9-S Framework is to be comprehensive at the organization level. Most of Hubbard's measurement formulae are modified from the existing human resources measurement literature, particularly the work of Fitz-Enz (1984). Although Hubbard's model and measurement concepts appear to have been widespread in business and industry, the underlying theory of and results from the approach are unknown. Hubbard's model, however, is one of the most thorough to date because of its attempt to conceptualize a broad array of human resource issues associated with diversity.

The Role of Diversity Measurement and Evaluation in Organizational Contexts

The most common utilizations of organizational measurement and evaluation are prediction, explanation, management of programs, and the maintenance and sustainability of current and future performance (Holton, 1997). Measurement and evaluation can be used to influence planning. Planning is often a product and mediator between diversity evaluation and measurement, and provides the drivers for performance improvement that are linked to organization success (Kaplan & Norton, 1996). From this perspective, measurement alignment is important to the success of organizational functioning (Semler, 1997). Alignment denotes linkages among an organization's strategic plan, organizational management style, reward and recognition systems, and external customer concerns. Rummler and Brache (1995) suggest that data collected related to the organizational context represent the performance situation and form the basis for making decisions. Managers may use data to monitor core organizational systems and processes; employees may use the same data to improve individual job performance. Data can also be used as a communication medium among managers and employees for identifying current and expected performance.

Measuring organizational performance to include diversity related performance offers the opportunity for higher levels of sophistication in approaching measurement in the organizational context. Evaluation of organizational practices from a systems perspective presents more complexity. When measurement and evaluation are well defined they can be better understood and implemented. Decisions regarding the use of attributes or indicators are requisite for individual, team and organizational success in improving performance (Sleezer et al. 1998a). There are necessary linkages between evaluation, measurement and planning of diversity efforts (Thomas, 1999).

Evaluation and Measurement of Diversity Efforts

Although several organizations have been involved in diversity interventions for more than a decade, there is limited evidence of evaluation associated with diversity initiatives in the HRD literature. Even fewer articles or reports exist regarding the scope and quality of those measures (Wentling, 2000; Wheeler, 1994). Comer and Soliman (1996) emphasize the importance of evaluating the results of diversity efforts. "Evidence of diversity's impact on the bottom line has not been systematically measured and documented for easy retrieval and use" (Robinson & Dechant, 1997, p. 21). To date, most academic research has been primarily concerned with the impact of race and gender in dyadic relationships and groups (Kossek & Lobel, 1996; Richard, 2000). Applied research has focused on the management of workforce diversity including recruitment, hiring, selection, and utilization of diversity (Richard, 2000).

Recent findings indicate that organizations have begun to acknowledge that measurement of diversity efforts is of importance and have begun to engage in evaluation practices associated with diversity initiatives

(Wentling, 2000). In Egan's (2000) study of US corporations, approximately seventy-five percent of respondent organizations reported some use of evaluation measures associated with diversity efforts. There are, however, indications that evaluation of diversity efforts is new to organizations and that evaluation and measurement effectiveness are of significant concern (Wentling, 2000). Wentling indicates the possibility of an often-narrow use of instrumentation by organizations.

Most of the available reporting of corporate diversity measurement appears to be broad in scope and does not provide adequate information to determine the specificity and frequency of reported diversity measurement approaches. One example is that of Marriott International, Inc. (Tate, 1999). Marriott has taken a business objectives approach. The company has identified measurement as being critical because of a belief that tangible evidence "gets noticed", indicates progress, can be supported in the budget, and is vital to ongoing refinement and adjustment (Tate, 1999). Marriott's existing measurements include: attitude surveys; retention records of minorities and females; EEO complaints filed; documenting representation by minorities and women in senior, middle and entry level management ranks; tracking legal fees and settlement costs for discrimination cases; minority and female vendor and supplier relationships; recruiting and ability to attract diverse candidates; minority and female franchisees; external recognition; and benchmarking. Additionally, rewards to managers are given for: "programmatic and numeric diversity objectives"; examination of corporate policies and practices to ensure that policies are supportive of diversity endeavors; and inclusion of a diversity component in performance evaluations. This example demonstrates the following: 1) the measurements are context specific; 2) there are a range of approaches to diversity performance measurement; and 3) the measurements link two or more performance domains including mission subsystem, process, team, and individual levels (Holton, 1997).

Key Factors to Evaluation and Measurement Effectiveness

Definitions vary for the terms measurement and evaluation. Measurement is most often described as an approach or process for gathering information or data collection. Evaluation has been defined as the determination of congruence between performance and objectives (Mehrens & Lehmann, 1991) and as a process for providing information about activities and organizational elements to influence decision-making. Evaluation has also been defined as a process for determining the worth or quality of something (Worthen & Sanders, 1987).

Kettner, Moroney and Martin (1999) define measurement as a system of rules usually focusing on the process of numerical assignment to phenomena. Nunnally and Bernstein (1994) identify measurement as consisting of rules for assigning symbols to objects. The purpose of these assignments are "scaling" and "classification". Scaling is referred to as the numerical representation of attributes while "classification" determines whether objects fall into the same or different categories with respect to a particular attribute.

Nunnally and Bernstein's (1994) use of the words attributes, rules and scaling are important considerations (Sleezer, Hough & Gradous, 1998a). Attribute refers to our inability to measure an object or characteristics of an object directly. Although we are not able to measure attitude directly, we can measure indicators such as the observed numerical values on a survey instrument. Similarly we may be able to directly measure the size, color and price of an appliance in a store, but we must infer quality by measuring observable indicators (Sleezer et al. 1998a). Most of the elements associated with organizational performance and diversity must utilize proxies.

The term *rules,* as emphasized by Nunnally and Berstein (1994) are also important (Sleezer et al.1998a). The assignment of numbers must be unambiguous and clearly stated. Rules for the measurement of attributes are not always explicit. The rules may be a product of deduction, be based on previous experiences, flow from intuitions or common sense, or be a product of estimation (Nunnally & Bernstein, 1994). "Because the rules for measuring performance are not intuitively obvious, performance has been assessed in multiple and sometimes conflicting ways" (Sleezer et al. 1998a, p. 64). Some of the examples of process quality measures that do have structured systems of rules for assigning numerical values include ISO 9000 guidelines and the Baldridge Award Criteria (George, 1996; Schlickman, 1998). The challenges presented by such systems are that the rules for assigning numerical values are negotiated and change over time (George, 1996). From the examples above, evaluators creating measurement systems must determine the performance attributes to measure, the indicators that will be used to measure them and the rules for assigning numbers. In order to ensure credibility of the evaluation effort, measures must be reliable, valid and practical. Reliability is associated with consistency and accuracy, and refers to the ability of an instrument to measure the same thing when used several times. Validity ensures the instrument measures what it is intended to measure. Practicality refers to the ability to administer the instrument in a reasonable amount of time with realistic administrative requirements.

Even the best measures are not absolutely consistent (Borg & Gall, 1989). Some organizations participating in diversity related performance improvement efforts survey customers based on specific demographic categories. One approach to such research is the use of a customer survey to determine product performance. There are several potential sources of measurement error in this case including: the customer, situational factors, survey instrument, and the measurer. Some customers may provide incorrect demographic data, or overstate the use of the product. The environment where the survey is being distributed and collected may not be conducive to produce open disclosure. Accuracy may be compromised if the measurement instrument contains ambiguous questions or the measurer holds unexamined biases or utilizes improper statistical techniques. Measurement error is particularly problematic when attempting to measure abstract and theoretical concepts (Fowler, 1993).

The process for implementing any quantitative measurement system is a product of negotiation and renegotiation over time. Performance improvement measures evolve, as do those individuals who manage and interpret the data (Sleezer & Gradous, 1998b). No measure of performance or of organizational systems is perfectly consistent. Measurement errors, situational factors, measurement instruments, subjects of measurement, and measurers can all contribute to inconsistencies. Although there are ways to control for some errors, inconsistency in measurement will continue to be a challenge for researchers (Borg & Gall, 1989).

According to Borg (1987) there are four main uses of scales in social science research. Interval and ratio scales are often called metric while nominal and ordinal scales are commonly referred to as nonmetric. Scaling refers to the numerical statement that can be made about how much of an attribute is present (Nunnally & Bernstein, 1994). Measuring diversity performance requires the use of the appropriate scale according to the situation and the data. Nominal scales involve typical identifiers that are static along a dimension such as gender or "racial category". Ordinal scales are simple scales that order people, objects or events along some continuum, like organizational rank, but do not report anything about the differences between units on a scale. Differences along interval scales have the same meaning anywhere along the scale such as on a thermostat. Ratio scales have a true zero point, such as salary (Howell, 1992). According to Nunnally and Bernstein (1994) metric measuring scales make available more information than categorical scales and should be used when possible. The addition of metric scales when measuring and evaluating diversity can produce more meaningful and complex indicators of related performance.

The definitions of evaluation and measurement explored above will assist in focusing relevant questions regarding the measurement and evaluation of diversity efforts in organizations. A first question for an evaluator of diversity is: How is diversity defined? How diversity and organizational diversity efforts are defined will determine the selection of attributes. These attributes may be either directly measurable or abstract, latent constructs. Latent constructs cannot be measured but observable indicators that infer the construct can provide measurements. When examining the evaluation of diversity there are several constructs at play, none of which can be measured directly. The three major constructs associated with measuring diversity efforts are diversity, performance and performance improvement. Sleezer et al. (1998b) defines performance in the following way: "Performance consists of processes, accomplishments, and capacities that affect current and future individual, team, and growth in capacities" (p.123-124). Attributes and their respective indicators are used to infer performance. The concept of customer service to a particular demographic group could be used to infer performance results for a business unit. Asian-American customers could be asked questions to elicit information regarding various indicators. By combining the answers, we could develop a view of the customer service construct and ultimately performance. We could also gain a perspective regarding the customer service to minorities construct and ultimately insight on diversity. In the case of both performance improvement and performance improvement of diversity, we must enumerate processes, capacities and accomplishments that are changing or have changed. Once quantified, we can use measurement to gauge attributes of a performance prior to and following an improvement activity or to test attributes of the activity itself (Sleezer et al. 1998a).

Holton (1997) proposed four performance domains for organization systems. The author identified typical metrics that he classified as performance outcome measures or performance driver measures. Sleezer et al (1998a) indicated whether the performance outcomes or drivers were constructs, indicators or not defined. A chart specifying diversity-related measures as constructs or indicators is featured below (Chart 1). Most of the performance drivers and outcomes presented are latent constructs that provide special measurement challenges to those interested in performance improvement. The constructs are difficult to identify by observations, objects or specific events. The challenges are even greater when constructs associated with diversity are included.

Evaluation and measurement of diversity efforts are challenging. In order to measure meaningful outcomes associated with diversity, diversity must be linked to performance and performance improvement. Using measurement to evaluate the effectiveness of diversity is complicated for the following reasons: diversity and performance are latent constructs, as is the concept of performance improvement related to diversity; these latent constructs have multiple attributes that may be confounded by other attributes such that they are not distinguishable; indicators may connect to multiple attributes; multiple indicators exist for each of the attributes; and, as supported by the definition of diversity, each situation being measured involves a unique combination of attributes. The

Chart 1.Typical Performance Outcomes and Drivers for Organizational Systems Associated with Organizational Diversity Efforts

Performance Outcomes	Construct or Indicator	Performance Drivers	Construct or Indicator
Economic Returns by Demographic Group	Construct	Societal Benefits	Construct
External Metrics by Population Sectors	Construct	Societal Beliefs	Construct
Market Share	Indicator	Knowledge Capital	Construct
Profitability	Indicator	Management/Leadership	Construct
Mortality *Rate*	not defined	Societal Responsibility to Community Diversity	Construct
Customer Diversity	Construct	Customer (needs/satisfaction)	Construct
Quality	Construct	Quality	Construct
Cost	Indicator	Innovation	Construct
Time	Indicator		
Product Features	Construct		
Market Share (in product category; by demographic sector)	Indicator		
Team Effectiveness (& diversity characteristics)	Construct	Team Innovation	Construct
Structural Subunits of Performance	Construct	Team/Group Climate (demographic information)	Construct
Productivity (resource efficiency)	Construct	Management/Leadership	Construct
Internal Metrics	Construct		
Work Outputs	Construct		
Turnover	Indicator	Knowledge & Expertise of Diversity	Construct
Absenteeism	Indicator	Renewal & Growth of Diversity Efforts	Construct
Productivity	Construct	Learning About Diversity Issues	Construct
Individual Output	Construct	Human Relations (diversity related effectiveness)	Construct
		Ethical Performance	Construct

Modified from Holton (1987) & Sleezer et al (1998a)

Note: Performance outcomes and their associated drivers are listed horizontally.

difficulties involved with these issues along with the relative infancy of diversity efforts in organizations suggest the need for research that builds performance measurement theory and links it to practice.

Conclusion

The challenges discussed above have implications for the measurement of the effectiveness of diversity efforts. Further research is needed to target individual interactions among and between practice areas within organizational systems and between the internal organizational environment and the industry and macro environments. Within each of the interactions examined, diversity related performance situations and their contexts should be studied and the complexities of measuring diversity performance must be acknowledged. Understanding the elements of diversity performance within a particular interaction will provide a baseline for utilizing evaluation to improve diversity-related organizational performance.

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Improving Customer Service Training in Korea

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Customer service employees in five Korean companies were interviewed to identify good and bad customer service behaviors, using critical incident technique. The findings were: training for service recovery is needed; additional service gives a strong impression to customers; good and bad service behaviors are not in the same areas; empowering customer service employees is necessary; training cannot cure all customer service problems; and technology plays a critical role in customer service and employee training.

Keywords: Customer Service Training, Critical Incident Technique, Korean HRD

In the past several decades, service industries have grown rapidly and generated a number of new jobs. The importance of managing the relationship with customers has become critical in the service field, and many researchers have explored the complex behaviors between customers and service employees. Although training for front-line service employees has been considered to be critically related to customer satisfaction (Brewer, 1995; Johnson, 1996), there is relatively little research that provides practical implications for customer service training. Questions regarding effective customer service training still remain (Grimm, 1990; Johnson, 1996). Recently, Russ-Eft, Berry, Boone, and Winkle (2000) identified five major customer service competencies: see the "big picture" and how customer service fits into it; establish an authentic human connection with each customer; render timely, accurate and thorough service; value and respond to unique customer needs; and extend a hand to repair and strengthen relationships with customers who are upset or angry. This was conducted with North American organizations.

In Korea, since the 1980s, the concept of customer service has been widely used in many industries, but it has not been vigorously researched from a Human Resource Development (HRD) perspective.

The purpose of this study is to investigate what constitutes good and bad customer service behaviors in Korea. The types of HRD efforts that are needed to improve customer service training in business organizations in Korea will be also discussed.

Research Question

The main research question of this paper is, 'how can customer service training in Korea be improved?' Two specific questions are explored: first, what good and bad customer service behaviors occur between customer service employees and customers?; second, what are the implications of the findings for improving customer service training in Korea?

Literature Review

There are different approaches to customer service in the research literature. It seems important to clarify how those approaches are different and what their focuses are.

First, there is an approach to customer service from a *service encounter* framework that focuses on interpersonal elements between customers and employees (Czepiel, 1990; Lockwood & Jones, 1989; Mill, 1986). Solomon, Surprenant, Czepiel and Gutman (1985) defined service encounters as "face-to-face interactions between a buyer and a seller in a service setting" (p.100). The conceptualization of customer service from the service encounter framework contributes to a better understanding of the social nature of service interactions (Czepiel, 1990).

Second, a great deal of research has dealt with customer service from a *customer satisfaction* framework (Drew, 1994; Rust & Zahorik, 1993; Woodruff & Gardial, 1996). Customer satisfaction refers to a customer's feeling, whether positive or negative, about the value received as a result of using a particular organization's offering in a specific situation (Woodruff, Schumann, & Gardial, 1993). Based on this framework, constructs, processes and

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outcomes, and evaluation tools for customer satisfaction have been identified (Erevelles & Leavitt, 1992; Lai & Widdows, 1993). Recently, a wide variety of US service firms have implemented *service guarantees* as the ultimate strategy to ensure customer satisfaction. They set clear *service quality* standards and have explicit policies to compensate customers when the standards are not met (Hays, 2000).

Third, a *service quality* framework is a managerial approach to customer service (Kelly & Hoffman, 1997; Parasuraman, Zeithaml, & Berry, 1994). The concepts of customer satisfaction and service quality have often been used together because of their similarity (Cooper, Cooper, & Duhan, 1989). According to Czepiel (1980), customer satisfaction as a marketing issue becomes a service quality issue when we focus on operational management or personnel management. In this regard, the service quality approach relies on judgement. It is viewed to be the overall evaluation of a specific service that results from the comparison of customers' expectations and actual performance of the firm (Lewis & Booms, 1983).

Fourth, a term, *customer loyalty,* is widely used as the ultimate goal of service activities. It refers to customers' willingness to repurchase from a particular firm (Hays, 2000). It is the consequence of *customer satisfaction* and /or high quality service.

In summary, it is hard to clearly separate the concepts of *service encounter, customer satisfaction, service guarantees, service quality, or customer loyalty* because they are intimately related although their focus seems different. Even empirical studies often use those concepts with no attempt to distinguish them (Hays, 2000).

Customer Service Training in Korea

The concepts of customer service, satisfaction, or quality have been interchangeably used in customer service literature in Korea, which need to be clearly defined. However, in the training field, the term customer service training is commonly accepted to indicate the educational courses and developmental efforts, which are geared to enhance skills and knowledge for better customer service. For this reason, customer service training is used in this study.

Due to the lack of data in Korea, it is possible only to assume the current status of Korean customer service training, depending upon indirect sources of information. In fact, the annual expenditure or detailed program contents or methods of customer service training is not available. Some survey results can help partly explain customer service training. For example, Ahn and McLean (1993) surveyed 300 Korean companies to research the status of training. It did not include specifically the category of customer service training. Instead, it showed that more than 50% of companies participating in the survey provided interpersonal skills (or human relations), listening skills, problem solving, quality improvement, or stress management to their employees, and it is assumed that these programs might be provided for the purpose of improving customer service. When the Korean Management Association (KMA) (1992) surveyed HRD employees at 1000 large companies in various industries, current key issues in employee education were presented. One of the key issues identified in the survey was sales reinforcement and salesperson development, which is a part of customer service training.

Recently, some customer service studies have been conducted (Choi, 1999; Jang, 1998; Park, 1997; Won, 1997). These studies discussed perceptional differences on service orientation between managers and employees in the hotel industry (Choi, 1999), and investigation of service level of the service employees and perception of customer service training in the tourist industry (Won, 1997). In addition, they compared the perception on customer satisfaction between employees and customers in finance industry (Jang, 1998), as well as a case study of current status of customer satisfaction in a company (Park, 1997).

Methodology

Critical Incident Technique (CIT) was used for data collection of good and bad examples of customer service behaviors. CIT has often been used in marketing and service research since it is useful to collect specific incidents of effective and ineffective behavior of certain areas (Bitner, Booms, & Mohr, 1994; Bitner, Booms, & Tetreault, 1990; Edvardsson, 1992). Therefore, it helps develop the critical requirements of occupational activity (Flaganan, 1954; Ellinger & Watkins, 1998), by capturing interactive behaviors among engaged personnel, and it also provides basic information for effective training in a certain area (Ellinger et al., 1998).

Data Collection

The data were gathered in AchieveGlobal Inc. in 1998 by a researcher who was responsible for gathering data from Korea and used for this study by permission. For samples, the researcher contacted the Korean affiliate of

AchieveGlobal Inc. in order to find business organizations that might be interested in this research. Five companies were referred to, and all were willing to participate in this study. The types of industries of the companies were not considered because this study was not designed for application to one specific industry. Each company recommended five to eight customer service employees who had direct contact with customers in the company to the researcher. The researcher contacted 27 people to explain the research, and 24 agreed to participate.

Table 1. Summary of the Participating Companies

Company	Type of Business	Number of Employees	Primary Customers	Number of Interviewees
A	Retail	200	Consumers and business	7
B	Transportation	55	Consumers and business	3
C	Basic manufacturing	3,000	Consumers and business	5
D	Hi-Tech manufacturing	55	Business	3
E	Business services	3,800	Business	6

Interviews were conducted by the researcher in Korean over the phone. Each interview lasted around 30 minutes. Examples of the basic questions were:

- Think of a time within the past month when you or someone else provided outstanding service to a customer.
- Think of a time within the past month when you or someone else failed to meet the needs of a customer.

Each question has sub-questions as follows: (a) What did the person do? (b) What was the situation? (c) How did that customer react? (d) What was the result of this behavior? and (e) What was this person's title and position in your organization?

Data Analysis

Analysis of the incidents followed the guidelines introduced by Flanagan (1954), and detailed by Ellinger and Watkins (1998). First, after interviews, the researcher produced transcripts in Korean, which were then translated into English. Second, reported incidents were classified through repeated, careful inspection of the records, then, the broad grouping was made as a result of comparison of similarities. One group of incidents was related to core service and the other was related to additional service. Third, this broad grouping was more refined by repeated sorting and combining process. Finally, several subcategories under two major categories were identified. This clustering process is critical to establish the trustworthiness of resulting data (Bitner, et al., 1985; Grove & Fisk, 1997).

Often, respondents mentioned several behaviors for each incident, suggesting that people tend to view a case as satisfactory or unsatisfactory for several reasons. Therefore, one incident might produce several successful or unsuccessful behaviors in different subcategories. As a result, although the original total was 88 *incidents* (44 of good examples and 44 of bad examples), 112 *behaviors* (60 of good behaviors and 52 of bad behaviors) were identified as seen in Table 2.

Results

Group1: Core Services

Group 1A: Interpersonal behavior. While the employees are providing basic service to customers, their interpersonal behaviors, such as kindness, politeness, or sincerity provide customers with satisfactory impression. In contrast, rudeness, ignorance, lies, unfriendliness, or impoliteness leaves bad memories with customers.

Group 1B: Communication behavior. The employees' communication skills tend to be critical for good customer service (n=12). During the conversation, if the employees are patient, good listeners, or provide enough information, and continue to follow-up, customers feel satisfied with those behaviors. If not, customers remembered their experience as poor service.

Group 1C: Seamless service. Accurate, seamless services are welcomed by customers. Flawed, incomplete, and inaccurate services are considered poor.

Group 1D: Timeliness. Quick, timely response to customers' questions or requests is reported as favorable. Timeliness is often addressed with other items together. (e.g., timely seamless service, or fast claim solving). Typically, poor service examples related to time issues, including missing a contracted date or time, or keeping customers waiting.

Group 1E: Claim or problem solving. How to respond to customers' claims and how to solve the problems influence the customers' perception about the service. Under the same circumstances, if employees are willing to take care of claims or problems and show attentions to the customers' request, it is very likely to provide them with a memory of excellent service. If employees just avoid the responsibility or defend the company or themselves, it results in a very bad impression. Service recovery appears to be critical in the customer service field.

Group 1F: Bending or not bending rules. In each organization, there are some rules and work processes which the employees need to follow. Although the employees are supposed to follow internal guidance, if they bend the rules for customers, the customers favorably remember the experience. In contrast, rigid rule application or irrational work procedure makes customers feel uncomfortable.

Table 2. Frequency of Customer Service Behavior by Category

Category	Types of Customer Service Behavior					
	Good		Bad		Row Total	
	No.	%	No.	%	No.	%
Group 1: Core Service						
A. Interpersonal behavior	4	6.7	6	12.0	10	9.1
B. Communication behavior	12	20.0	7	14.0	19	17.3
C. Seamless service	3	5.0	7	14.0	10	9.1
D. Timeliness	6	10.0	6	12.0	12	10.9
E. Claim or problem solving	5	8.3	5	10.0	10	9.1
F. Bending or not bending rules	7	11.7	6	12.0	13	11.8
Subtotal, Group 1	37	61.7	37	74.0	74	67.3
Group 2: Additional Service						
A. Extra effort	20	33.3	4	8.0	24	21.8
B. Response to extraordinary requests	3	5.0	9	18.0	12	10.9
Subtotal, Group 2	23	38.3	13	26.0	36	32.7
Column Total	60	100.0	50	100.0	110	100.0

Group 2: Additional Service

Group 2A: Extra effort. Personal extra efforts to help customers is definitely appreciated by customers even if it does not always work (n=20). Working for customers during off-hours, helping customers beyond the employee's duty, and special efforts given to customers were identified in this category. When the employees do not give any help because it is not their job or they are not on duty, customers show dissatisfaction even if the employee has a reasonable reason.

Group 2B: Response to extraordinary requests. The employees encounter many uncomfortable situations due to customers' extraordinary, often unreasonable, requests. Even in this case, if the employees try to provide alternative suggestions for the customers, it is more likely that they are satisfied. However, when the customers' complaints are rejected for any reason, they ironically viewed the inability to help as employee or the company's fault.

Improving Customer Service Training in Korea

The interviews suggest several directions conducive to improving customer service training in Korea.

Training for service recovery is needed. The importance of service recovery was confirmed in this study. In fact, a few researchers who used the same technique and sampled different respondents or industries also emphasized the importance of service recovery (Bitner, et al, 1990: Russ-Eft, et al., 2000). An initial service failure itself does not necessarily cause customers to have unfavorable perceptions. What matters is how to recover from those failures (Bitner, et al., 1990). If it is successfully managed or compensated, they become very pleasant experiences. By contrast, if it is not dealt with appropriately, it could magnify the bad impression. The customers tend to remember employees' responses to the initial failures rather than initial failure itself. In this regard, training for how to recover service failure seems very helpful in enhancing the level of customer satisfaction. Also, the customer service training should cover techniques of dealing with customers who are upset or angry. For instance, suggesting 'extras' to those customers could be one way of strengthening the relationship as some service employees are doing in America (Russ-Eft, et al., 2000). Or, at the organizational level, the company can set an explicit policy for service guarantees in case the service has failed, then train the employees to ensure the standards of service quality.

Additional service also gives a strong impression. Most frequently addressed good and bad service incidents fell into the additional service category: extra effort and responses to extraordinary requests. It is so easy for employees to be aware of what is important in basic, core service. Therefore, they might do their best to fulfil job requirements, which are mostly related to core service functions. However, unlike their expectations and efforts, the customers tend to be more impressed by additional help provided. Or, the customers are more bothered by the employees' responses to their unusual request. Because loyal customers are likely to be obtained by the employees' additional service, more attention should be given to any additional service functions and customers' behavioristic patterns in customer service training programs. According to Russ-Eft, et al.(2000), when service employees can see the 'big picture' and how customer service fits into it, the employees are more likely to extend a hand to help customers.

Satisfaction factors and dissatisfaction factors are different. As found in the results of critical incidents, satisfaction factors and dissatisfaction factors turned out to be in different areas. As good customer service experiences, customer service employees' extra efforts were most often addressed (n=20). The next most often addressed behavior was communication behavior (n=12). However, the poor service examples were mostly related to the response to extraordinary requests (n=9). In the empirical studies of Bitner et al.(1990) and Grove and Fisk (1997), the underlying events and behaviors that lead to satisfactory and dissatisfactory service encounters, were found to be not the same. If satisfaction behaviors and dissatisfaction behaviors are different, although this issue needs deeper investigation, the training strategy should be differentiated according to the purpose of the service training. Enhancing satisfaction levels of customer service cannot necessarily guarantee lowering dissatisfaction levels. For this reason, a clear purpose and focus of training should be determined in advance of designing training programs.

Empowering customer service employees is necessary. When employees bend internal rules to help customers, customers feel grateful and have a good perception of the organization. If they insist on rules without clear explanation, customers tend to complain. During training, what actions are permissible with and without authorities needs to be clarified. Related to this issue, Bitner, et al. (1990) recommended that service employees should be prepared for "Plan B action" if needed. The effort to empower them and give them more flexibility for their decision can help employees' performance in terms of the effectiveness and productivity in their jobs (Albrecht & Zemke, 1985).

Training cannot cure all customer service problems. The interview results shows that some systematic obstacles that inhibit good customer service were found. In many cases, work structure and process, service-delivery system as well as technological problems caused ineffective and inefficient customer service (Bitner, et al, 1990). Although employee training can enhance the quality of service in part, it cannot solve all of the problems in customer service. Organizational strategy, including culture change and quality initiatives, should be incorporated into training interventions. According to Harrison (1987), different types of corporate cultures dictate particular service styles. Therefore, an organization wide approach to customer service is more effective (Brewer, 1995; Haywood, 1992; Schneider & Bowen, 1993; Tracey & Tews, 1995). In particular, Tracey and Tews (1995) advocated placing value on people (employees). The organizational strategy needs to be tied to the operational system, which refers to the means and methods chosen to deliver service. Through effective training for employees, the strategy or system can function well and support the organization. The effects of customer service training can be increased when the organizational efforts are extended from customer service training to various service quality initiatives at the organizational level (Cushing, Laughlin, & Dumas, 1987). Therefore, interventions for improving customer service need to include all parts of organizational efforts.

Technology is expected to play a critical role in customer service. Technology development influences timely, accurate service. Service employees and customers both take advantage of the development of technology mainly provided by computers. It becomes easier for them to access any kind of information through the internet or intranet. In an incident, a customer was able to check if his email asking some help was opened by the reader (service providers) through the internet. After he found that his email message had been deleted before it was even opened, he became upset. In this circumstance, La Londe, Cooper and Noordewier (1988) pointed out that accurate and timely information, backed by advanced technology, is one of the most critical factors for effective customer service relationships. Customer complaints can be codified and stored into the database and service employees refer to those records to solve service problems. Moreover, there can be different types of customer contact technologies according to their job characteristics (Chase & Bowen, 1988). In this regard, IBM's Human Resource Service Center is known for its successful use of technology and human resource processes to train customer service representatives (Gonzales, Ellis, Riffel, & Yager, 1999). The mostly required technological skills for certain customer service positions should be examined at the organizational level, and then, if the training is needed for employees, an appropriate training plan should be developed.

Implications for HRD

Good customer service does not result in only good reputation. It produces bottom-line payoffs such as sales increase, customer retention or market share (Rust & Zahorik, 1993; Zeithaml, Berry, & Parasuraman;1996). Schneider and Bowen (1993) showed the importance of managing human resources in service organizations. What kinds of HRD interventions are needed to improve customer service is a critical business issue. Based on the findings of this study, it becomes clear that customer service needs holistic approach. Most appropriate HRD interventions, whether organizational system change, or training, or both, should be adopted depending upon the causes of poor service. Some need organization wide change while some need short-term training sessions. Also, the findings of this study imply the importance of specifying the training purpose or participants prior to program design when training interventions are recommended. According to the purpose, participants and their job characteristics, the training contents, focus, or instructional methods should be differentiated. In addition, it has some practical usefulness in that this is based on actual interactions between customer and service employees, rather than theoretical models. For example, the incidents themselves can be used to produce training materials when they are developed as a case study or simulation scenario. Service behaviors identified in this research, whether positive or negative, can be also used for the purpose of developing evaluation tools for customer service training.

Recommendations for Future Research

First, the research needs to focus on a specific industry, such as the finance or hotel industry, in order to suggest more direct implications to customer service in the specific industry. Second, it might be interesting to investigate cultural differences in customer service behaviors. Jevons and Pidgeon found there are significant differences on service quality in Vietnam and Australia (1999). Also, Winsted (1997) concluded that there are significant cross-cultural differences in service experience between in US and Japan. Especially, international companies or multinational companies can take advantage of this comparative research in that their scope of customer service activity has extended internationally (La Londe, et al., 1988) Third, what kinds of instructional methods in customer service training will be effective can be another research topic. Given the situation that there are virtually no studies available that shows what effective instructional methods are related to customer service training (Grimm, 1990), an effective way to teach the successful behaviors identified in this study should be further explored.

Limitations

This research has some limitations. First, it is based upon a small sample. It is not possible to generalize the results to all Korean organizations. Second, the Korean economic crisis that occurred shortly after data collection may influence customer service training as well. Third, unfortunately, there is no Korean research available to validate the findings of this study by comparing the results. It is now only possible to compare the results with the literature produced in another culture.

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Organizational Culture and Training Effectiveness

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While as much as $200 billion is spent annually on training and development, many interventions fail. There is growing interest in the link between organizational context and human resource development, but organizational culture has been largely ignored. This paper examines the link between organizational culture and training effectiveness based on a review of literature related to organizational culture and subcultures, organizational context, transfer of training, and occupational professionalism.

Keywords: Training Effectiveness, Organizational Culture, HRD Theory

Organizations may spend as much as $200 billion annually on human resource development (HRD) (Carnevale, Gainer, & Villet, 1990; Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995). Yet, it is estimated that much of this investment is squandered on ill-conceived interventions (Baldwin & Ford, 1988; Georgenson, 1982, Tannenbaum & Yukl, 1992). The extent of this failure is unclear since few organizations choose to evaluate training (Saari, Johnson, McLaughlin, and Zimmerle, 1988). However, the literature is replete with reports of ineffective training, especially in trendy areas such as participation (Wagner, 1994), total quality management (Bennett, Lehman, & Forst, 1999), leadership (Conger, 1993), outdoor management development (Badger & Sadler-Smith, 1997), reengineering (Jaffe & Scott, 1998), and diversity (Hemphill, & Haines, 1998). The consequences of this includes the persistent undervaluing of HRD, costly litigation (Eyres, 1998), and growing cynicism about any organizational change (Wanous, Reichers, & Austin, 2000). A key measure of training effectiveness is transfer of training, defined as the extent to which a trainee "applies the knowledge, skills, and attitudes gained in the training context to the job" (Baldwin & Ford, 1988, p. 63). Even with a perfect design and trainee, zero or negative transfer may occur without organizational support. Several writers have examined the impact of organizational influences on transfer of training (Baldwin & Ford, 1988; Baldwin & Magjuka, 1997; Kozlowski & Salas, 1997; Tannenbaum & Yukl, 1992; Tracey, Tannenbaum, & Kavanagh, 1995; Xiao, 1996). However, there is sparse literature on the role of culture in fostering effective HRD interventions. I contend that the willingness of many practitioners to conduct training without regard for an organization's culture and subcultures is both a cause of failure and a reflection of HRD's weakness as a professional subculture. I begin with a discussion of the organizational context of transfer of training, followed by an examination of the link between cultural factors and training. Finally, I argue that as members of a relatively weak profession, many HRD practitioners do not have the knowledge, power, or status to demand the time and resources necessary to design effective training.

Organizational Context

Cascio (1987) asserted that transfer of training is "probably the single most important consideration in training and development programs" (p. 364). Most research on transfer has focused on factors such as learning theory, methods, and trainee characteristics (Baldwin & Ford, 1988; Tracey et al., 1995; Xiao, 1996). Recently, however, there has been a growing awareness of the influence of organizational factors on transfer of training (Baldwin & Ford, 1988; Facteau et al., 1995; Tannenbaum & Yukl, 1992; Tracey et al., 1995; Xiao, 1996).

In a review that spurred considerable interest, Baldwin and Ford (1988) found only seven studies examining the effects of organizational factors on transfer. Similarly, Tannenbaum and Yukl (1992) noted a dearth of research concerning the relationship between the organization and transfer. However, over the past decade, researchers have examined several aspects of the organizational influences, including training incentives (Facteau et al., 1995), training status (Baldwin & Majuka, 1991; Quinones, 1995), supervisory support (Xiao, 1996), supervisor credibility (Clark, Dobbins, & Ladd, 1993), and task constraints (Mathieu, Tannenbaum, & Salas, 1992).

There is growing recognition that climate, broadly defined as individual perceptions of organizational characteristics (Tracey et al., 1995), plays a major role in training effectiveness. Wexley and Latham (1991) posited that

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components of organizational climate such as compensation, opportunity for advancement, supervisory style, organizational goals, and concern for employees are related to transfer of training. Rouillier and Goldstein (1993) assessed the link between eight climate dimensions and posttraining behaviors. The authors tested the model in over 100 units of a fast-food chain and found that workers earned higher performance ratings in settings offering a more positive transfer climate. Using the Roeuillier and Goldstein climate questionnaire, Tracey et al. (1995) showed a direct relationship between climate and transfer. Noting the high failure rate of Total Quality training, Bennett et al. (1999) found a link between various climate factors and the transfer of service quality training.

Organizational Culture

Culture has been described as "one of the most powerful and stable forces operating in organizations (Schein, 1996, p. 231). Yet there has been little scholarly analysis of the impact of an organization's culture on HRD (Baldwin & Ford, 1988), although several studies have indicated a relationship between culture and the effectiveness of human resources management (HRM) practices (Aycan, Kanungo, & Sinha, 1999; Ferris, Arthur, Berkson, Kaplan, Harrell-Cook, & Frink, 1998; Kopelman, Brief, & Guzzo, 1990; Moran & Volkwein, 1992; Sheridan, 1992). Definitions of culture vary, but typically include concepts such as shared beliefs, values, and assumptions that are reflected in attitudes and behavior (Kopelman et al., 1990).

The literature related to organizational learning or continuous-learning cultures offer some insight into the link between culture and training effectiveness, although continuous learning is an ambiguous and evolving construct (Crossan, Lane, & White, 1999; Popper & Lipshitz, 2000). In perhaps the only study of the culture- training relationship, Tracey et al. (1995) conceptualized continuous learning culture as including the following characteristics: learning is "taken-for-granted; group and supervisory support for learning is "institutionalized;" and the learning culture is manifested in observable ways such as the reward system. Based on the responses of 505 supermarket managers, results showed that management training was more effective when newly learned behaviors conformed to cultural values.

Elements of Culture

In a more generalizable perspective of organizational culture, Rousseau (1990) developed a model depicting culture as the following five layers of elements: artifacts, patterns of behavior, behavioral norms, values, and fundamental assumptions. This is consistent with the view that artifacts and patterns of behavior are observable factors that reflect and perpetuate underlying norms, values and assumptions (Kopelman et al., 1990, Schein, 1990). Each layer has implications for understanding training effectiveness.

Artifacts

At the surface, artifacts are the "physical manifestations and products of cultural activity" (Rousseau, 1988, p. 157). Artifacts provide the most salient features of a culture (Schein, 1990), although their real meaning may be misconstrued. Galang and Ferris (1997) found that symbolic actions had more influence on the power of HR departments to gain organizational resources than unionization, HR performance, or the attitudes of top management. For example, artifacts suggesting strong support for HRD include impressive training facilities, certificates or other overt acknowledgments of training success, graduation ceremonies, participation of important figures such as top executives in HRD functions, and the high hierarchical position of HRD leaders. It seems likely that managing the use of artifacts is essential to training effectiveness.

Patterns of Behavior

Patterns of behavior are observable organizational processes such as decision-making, communication, and new employee socialization that reflects shared norms, beliefs, and assumptions. Individuals often conduct themselves on the basis of "environmental consequences" (Bandura, 1986). Thus, programs that are voluntary or unrewarded may signal the insignificance of training (Baldwin & Magjuka, 1997). Other examples of symbolic behavior include the exclusion of HRD leaders from strategic planning or the firing of trainers during an economic slowdown (Sleezer, 1991).

Behavioral Norms

Behavioral norms are the beliefs of organizational members hold concerning appropriate and inappropriate behavior. Individuals may develop negative beliefs about HRD during early socialization or previous experience (Rouiller & Goldstein, 1993). For example, norms may influence the level of group support for applying newly learned skills or the hostility of supervisors inconvenienced when employees attend training.

Values

Values are the importance given certain aspects of the organization such as quality versus quantity. Based on previous experience, individuals may reject the value of training because they have learned that "increased effort on their part will not result in increased performance" (Peters & O'Connor, 1980, p. 396). Thus, organizational constraints can reinforce beliefs about the value of training. There a numerous examples of HRD interventions such as diversity training (Hemphill, & Haines, 1998) or TQM (Bennett et al., 1999) that fail because training content collides with organizational values.

Fundamental Assumptions

The most elusive yet powerful layer of culture is subconscious assumptions. It is difficult to unearth assumptions because even the individuals who hold them are unaware (Rousseau, 1990). Consequently, managers may espouse great support for training yet subvert an employee's attempt to use newly acquired skills.

Subcultures

Scholars (Baldwin & Ford, 1988; Goldstein, 1991; Tannenbaum & Yukl, 1993) and practitioners have lamented the pervasive "nonprofessionalism" (Zemke, 1996) of many in the HRD field. For example, Tannenbaum and Yukl (1992) reported that only 25 percent of organizations surveyed conducted a needs assessment and only 10 percent evaluated training outcomes. Clearly, the prevalence of dubious training makes the prospects for improving the power and status of HRD "bleak" (Camp, Hoyer, Laetz, & Vielhaber, 1992). An obvious question, then, is why do practitioners offer training interventions "without regard to their actual need . . . or theoretical basis" (Facteau et al.,1995, p. 2). One answer may be that, as members of a relatively weak subculture, many HRD practitioners do not have the power or status to demand the resources required to design effective training. Organizations are made up of subcultures with differential levels of power, status, and influence (Sackman 1992; Trice & Beyer, 1993) that emerge from interactions centered around various categories including profession, department, hierarchical level, and line or staff function (Cooke & Rousseau, 1988; Rentsch, 1990; Schein, 1990). The following discusses how subcultural differences reflect and perpetuate training ineffectiveness.

Professional

Trice and Beyer (1993) stated that "the most highly organized, distinctive, and pervasive sources of subcultures in work organizations are people's occupations" (p. 178). Through exclusivity and extensive socialization, strong occupational cultures inculcate shared values, beliefs, and norms. Strong professions can demand a certain degree of independence and support. Organizations often defer to the will of occupational subcultures, such as accounting, where members owe their first allegiance to their professional code. Few accounts will forgo standard accounting practices just to please the current organization. Furthermore, most organizations do not expect it. Typical characteristics of a strong occupational subculture include a systematic body of knowledge, standardized training and limited membership, enforceable code of ethics, and formation of occupational associations (Trice & Beyer, 1993). Based on an analysis of these factors, it is argued that compared to professions such as medicine, law, engineering, and accounting, HRD is relatively weak. Consequently, HRD practitioners are likely to adopt the beliefs and assumptions of a more dominate culture (Enoch, 1989; Trice & Beyer, 1993).

Systematic Body of Knowledge. True professions are "organized around bodies of knowledge" (Hall, 1975). Jacobs (1993) noted that a member of a profession is seen by others to have "essentially monopolistic control over knowledge" (p. 76) beyond the reach of most laymen. Unfortunately, training practitioners frequently ignore extensive training research in favor of fads and gimmicks (Camp et al., 1991; Ostroff & Ford, 1992; Swanson, 1993). Latham (1988) noted that HRD scholars have conducted excellent research but "practitioners and practitioner journals appear to be unaffected by these advancements" (p. 65). For example, one training executive maintained that "management training is largely a matter of faith" and if employees seem interested in taking a training intervention, "it's probably good" (Hubbard, 1997). Consequently, it is not surprising that Clark et al. (1993) found that "in some organizations, training is perceived as a waste of time and as a way to avoid work" (p. 304).

Code of Ethics. A professional code of ethics is a fundamental artifact of strong professional cultures. Yet, while there have been some attempts to define unethical behavior (Clement, Pinto, & Walker, 1978), it is only recently that specific codes of ethics have been proposed (Beegenhenebouwen, 1996; Hatcher & Aragon, 2000). Moreover, adherence to these standards is merely voluntary. Although it could greatly enhance the profession, adopting the standard that conducting poorly designed training is unethical, even if a decision-maker asks for it (Holton, 1998), is unlikely for most practitioners.

Standardized Training and Limitation of Membership. There is yet no standardized program or basic level of knowledge for HRD practitioners (Wexley & Latham, 1991), although there are several excellent university programs. Instead, many HRD practitioners learn on the job where the values and assumptions of the dominate culture rather than the profession guide behavior. Ironically, an HRD degree may considered an obstacle to effective training. In a debate on the value of HRD degrees, the training manager of a large corporation saw the possession of a degree a potential drawback because, "In the real world, if you need the program tomorrow, you have to skip the analysis" (Kaeter, 1995).

Formation of Occupational Associations. Perhaps HRD's greatest and most promising strength is the existence of the ASTD and the Academy of Human Resource Development (AHRD). These organizations consistently call for and support greater professionalism. The development of a code of ethics is just the latest example of efforts to elevate HRD to the status of a strong profession.

Departments

Trice and Beyer (1993) noted that many functional departments have their own culture. Members of these subcultures tend to share values and assumptions that are manifested in behavioral norms unique to each department (Dansereau & Alutto, 1990; Trice, 1993). Conflict and power struggles result when organizational variables are interpreted differently. For example, a company motto such as "Customers come first" may have distinctive meanings for production, accounting, and marketing (Dansereau & Alutto, 1990). There is also evidence that departments may disagree on the design and content of training (Mathieu & Martineau, 1997).

Hierarchical Levels

Different hierarchical levels can produce distinct subcultures (Trice & Beyer, 1993). Rothwell and Kazanas (1990) noted that HRD is rarely involved in strategic planning because of "the low status trainers occupy in most organizational hierarchies" (p. 43). HRM managers (to whom HRD often reports) are rarely found above the operating level (Fisher, 1989). Cooke and Rousseau (1988) concluded that subcultures at lower levels are more likely to support conflict avoidance, competition, and dependence. This may explain why some practitioners tend to submit to the will of stronger departments. According to Holt (1998), HRD practitioners tend to be preoccupied with "pleasing the customer" instead of what is "theoretically sound" which leads to interventions that are "dumb, ineffective, and sometimes unethical."

Line/Staff

Much has been written about the differences between line and staff (Belasco & Alutto, 1969; Koslowsky, 1990). In many organizations, emphasis on the bottom line is a basic cultural assumption (Weick, 1979) and may explain the tendency for line managers to disregard staff functions (Trice & Beyer, 1993). Line management support is a major factor in realizing training effectiveness (Clark et al., 1993; Xiao, 1996), yet they often question the value of HRD (Camp et al., 1992; Heraty & Morley, 1995; Zenger, 1980).

Conclusion

There have been many advances in training research and theory over the past two decades. Yet, many HRD practitioners are either unaware of or unwilling to follow the steps necessary to achieve effective training. Consequently, interventions may be unsuccessful without "considering the deeper patterns embedded in an organization's culture" (Moran & Volkwein, 1992, p. 43). Ironically, each training failure perpetuates the notion that HRD is marginal. Low expectations beget low expectations, so that attempts to design appropriate solution are thwarted by negative stereotypes. The task is daunting, but developing professionalism is imperative if HRD is to have the status and power required to meet the needs of organizations.

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The Intersection of Training and Careers: An Examination of Trends of Vocational and Professional Certification and a Call for Future Research

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The 1990's saw increased development of skills standards and certification exams. When employers began accepting skill certification in lieu of traditional job training, workers acquired more credentials. The paper examines the increase in the number of skill certifications available, discusses legislative causes of these increases, and notes the current lack of published peer-reviewed analyses of statistical validity of certification exams. The paper presents a call for future research to determine the usefulness of certification.

Keywords: Skill Certification, Vocational Education, Technical Training

During the 1990's, industrial shifts away from manufacturing and toward service, especially the expansion of the software and hardware fields, led employers to increase demand for highly skilled workers. In response, private organizations rapidly increased the number and type of skill certifications available. Although there has been an exponential growth in the number of certifications available and in the number of people certified, there has been no systematic tracking of these trends.

The current paper first presents a review of the literature on certification exams, covering: labor supply and demand; legislation; and types of certifications available. The paper then presents findings of available data. Finally, the paper presents a call for future research on the extent of certification and the validity of these exams.

Theoretical Frame

Supply and Demand of Workers and Advanced Training

Employer Demand for Workers with Advanced Training. In the United States, employer demand for highly trained workers continues to increase. This demand for skilled workers is driven by service sector firms that have high percentages of managerial, professional, or technical workers, whose employees must be highly skilled, flexible, and adaptable if the firms are to remain globally competitive (Silvestri, 1997; Bishop, 1996; Carter, 1992). These advanced sectors of the economy continue to expand faster than those sectors that historically have not required employees to use judgement and critical thinking, such as traditional manufacturing firms (Katz, Hwang, & Resnick, 1997). Further, because the industrial mix and technology are changing rapidly, firms also require employees to have the ability to learn, so that employees can obtain new skills necessary to perform effectively in the changing environment (Thurow, 1997).

Supply of Skilled Workers. The increased demand for highly skilled workers has induced changes in the supply of skilled workers. For example, U.S. Governors implemented initiatives to increase the high school graduation rate, which currently stands near 90% (Kaufman, et al., 1999). Further, the percentage of 25 to 34 year olds who have a college degree increased from 24% to 29% during the 1990's (this percentage had remained at 24% throughout the 1980's). In contrast, the percentage of 25 to 34 year olds with only a high school diploma remained at about 60% for the twenty year period (U.S. Census Bureau, 2000). Nevertheless, employer demand for skilled workers continues to exceed the supply of skilled workers, leading high school graduates to seek certification. This skill gap is demonstrated by the increasing wage differentials between college graduates and high school graduates during the 1980's and 1990's (Bishop 1996; Bishop & Carter, 1991).

Methods for Workers to Obtain Advanced Skills. In order to achieve the higher skill levels required today, workers can earn college degrees or can acquire the skills through other means, such as training, independent study, job experience, or continuing education. Whichever route to skill acquisition is chosen, workers need a credential

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to indicate their skill levels to employers. Some workers use a college degree as the credential, and employers can gauge the skill level of a college graduate based upon the graduate's GPA and the rigor of the college that granted the degree.

Workers without a college degree can obtain training and use a skill certification as the credential. A skill certification can be provided by a college, a vocational school, a private training organization, or a certification / testing organization (Veum, 1993). Prior to the mid 1990's, however, skill certification was used in a limited number of fields, was rarely discussed in federal publications, and was deemed to be outside the mainstream educational system (Krenek, 2000).

Effect of Legislation on Supply of Technical and Professional Training

Certification-Related Legislation During the 1990's. On April 18, 1991, President George Bush presented an education strategy, named "American 2000," to the public (U.S. Congress, 1991). This strategy was debated and refined during the 103rd and 104th Congresses, and was presented for signature to President William Clinton as "Goals 2000: Educate America Act" on March 28, 1994 (U.S. Congress, 1992, 1994c). The act called for sweeping reform at all levels of the educational system in the United States. Congress described the act thus:

> H.R. 1804 [is] an act to improve learning and teaching by providing a national framework for education reform;...to promote the development and adoption of a voluntary national system of skill standards and certifications; and for other purposes. (U.S. Congress, 1994c, p. H2215).

Congress strongly believed educational reform was necessary because of advances in technology, industrial shifts, and increased competition in the global economy. Congress believed that education should go beyond basic skills and should prepare workers to use technology and to be competitive with workers overseas (U.S. Congress, 1994b).

The act also was shaped by the vision of the Secretary of Education and the Secretary of Labor who each appeared before congressional committees to discuss the need for high quality training programs for people who do not enroll in a four-year college or university. They pledged to work together to create programs with high occupational and academic standards (Young, 1993). Their goal was to work with the states, school districts, and employers to create education that would be "well-grounded in academics but also in the broad occupational areas that are relevant to real job needs" (Young, 1993, p. 7).

Creation of the National Skills Standards Board. One of the initiatives of Goals 2000 was the establishment of a board that would focus on skills certification standards. In establishing the National Skills Standards Board (NSSB), Congress addressed three concerns: (1) workers' skills in the United States should meet or exceed the skills of workers in other countries; (2) educational institutions in the United States are fiercely protective of their autonomy; and (3) new standards should not conflict with or weaken existing standards.

Congress required that educational institutions be permitted to maintain their autonomy. The NSSB, therefore, was to use *voluntary* partnerships between business, labor, and education to develop skill standards systems including training and testing (U.S. Congress, 1994b).

In addition, Congress intended to use the NSSB to improve global competitiveness of American workers while maintaining the status of pre-existing certification programs. The legislation stated that the NSSB should:

> ensure that skill standards meet or exceed the highest applicable standards used in other countries...[and] also the highest applicable standards used in the United States, including the apprenticeship standards registered under the National Apprenticeship Act....the standards...are not [to be] used to undercut or dilute any existing standards. (U.S. Congress, 1994a, p. S1146).

The enabling legislation, therefore, called for a system of skills certification standards that would be voluntary, that would be the highest in the world, and that would not conflict with existing standards. Congress hoped that workers, employers, and educators would be enthusiastic regarding development of the standards.

Development and Use of Certification Training Programs

Scope of Certification Topics. Numerous certification exams are used to measure a vast array of skills. These include typist, auto mechanic, airline mechanic, computer programmer, compensation specialist, physician, and many others. The training levels required by these certifications range from high school education to doctoral education. Thus, it is currently possible for people of all ability levels to obtain advanced training and to document some level of expertise in a given field. This wide availability of certification is especially important for workers who do not attend college, because they can use certification as a means of entry into challenging careers, thereby increasing their standard of living.

Difficulties Developing Skills Standards and Certification Exams. Although employers and workers appreciate the existence of certification standards, these standards are difficult and expensive to develop. The difficulty and expense stem from the fact that certification standards measure *skills* not *knowledge* (Gerber, 1995). That is, although it is difficult to measure a body of *knowledge* with a written test, it is far more difficult to measure a set of *skills* with a written test (Nunnally, 1978). Many skills are best measured though measuring the performance of tasks rather than though measuring the knowledge used in performing those tasks (Carter, 2000; Osburn, 1987).

In addition, it is as difficult to determine which set of skills should be grouped together as standards for a given job as it is to measure those skills in workers (Milkovich & Newman, 1999). Several organizations have experienced difficulty developing job and skill standards. For example, after receiving a grant from the NSSB, the National Retail Federation worked for nearly two years to develop standards for the position of sales associate (Gerber, 1995). Another example can be drawn from the United Kingdom, which found the development of skills standards to be prohibitively expensive (Gerber, 1995). A third example can be drawn from the American Electronics Association (AEA), which represents 3000 U.S.-based technology companies. The AEA received a $279,000 NSSB grant in 1996 to develop a set of standards to help employers and community colleges design training and curriculum. It is unclear whether AEA has made progress toward that goal, although it recently reported to Congress regarding a continued shortage of skilled electrical and computer workers (Hughlett, 1999).

Growth of Employer and Employee Use of Certification. Following the passage of Goals 2000, skills training began to gain wider acceptance by employers (Hight, 1998). For example, advances in computer technology have led to a skills shortage, and "employers are increasingly embracing vocational certification, which is also becoming the norm in other industries" (Bellinger, 1996, p. 76). Employers use certified workers to fill positions such as systems and software engineers, systems analysts, programmers, repair technicians, and help desk staffers. This increased use of certification in the computer field is exactly the sort of outcome Congress desired when it ratified Goals 2000. Other areas of employment growth for workers with certification include mechanics, repairers, technicians, machinists, welders, carpenters, electricians, and truck drivers (Krenek, 2000; Veum, 1993).

The growth in certification could help increase diversity in the labor force. This would occur because Whites are more likely to receive on-the-job training than are Blacks and Hispanics, but Blacks and Hispanics are more likely to receive training from business schools and vocational or technical institutes (Veum, 1993). If Blacks and Hispanics continue to receive vocational certification at the same relatively high rate, and if employer acceptance of vocational certification continues, then labor force outcomes for Blacks and Hispanics will be better than they would otherwise be if employer demand for vocational skills did not increase.

Empirical Findings

Available Data on Skills Training and Certification

Level of Certification Reported in Federal Publications. For the last twenty years, economists of the U.S. Department of Labor, Bureau of Labor Statistics (BLS) have published biannual projections of occupational employment in Monthly Labor Review. These projections estimate employment growth in detailed occupations for the following ten years. The projections are based upon assumptions regarding population growth, consumer demand, economic growth, international trade, technology, employer demand for skills, and educational achievement of workers.

Although the projections are based partially upon educational achievement, prior to the projections published in 1997, the BLS did not report data on technical training or vocational education except for that which led to a high school diploma or college degree. The BLS wrote that, "schooling in other than regular schools is counted only if the credits obtained are regarded as transferable to a school in the regular school system," (USDOL-BLS & USDOC-BOC, 1996).

Therefore, prior to the mid 1990's, the extent of technical training and vocational education in the United States was relatively hidden from educators, researchers, and job seekers. For example, the BLS employment projections published during and before November 1993 reported educational attainment as: (1) less than 12 years; (2) high school graduate; (3) some college; and (4) college graduate (Fellerton, 1989; Silvestri & Lukasiewicz, 1991; Silvestri, 1993). Employment projections published in November 1995 contained no data regarding educational attainment (Silvestri, 1995).

From 1997 forward, the BLS increased the number of educational categories and linked each occupation with 1 of 11 different categories of education, training, or work experience required (Herman, 1999, p. 49; Wash, 1996-97). The 11 categories of educational attainment include: (1) first professional degree; (2) doctoral degree; (3) master's degree; (4) work experience, plus a bachelor's or higher degree; (5) bachelor's degree; (6) associate's degree; (7) post-secondary vocational training; (8) work experience in a related occupation; (9) long-term on-the-job training; (10) moderate-term on-the-job training; and (11) short-term on-the-job training (Silvestri, 1997; Braddock, 1999). This recent emphasis by the BLS on increased differentiation between levels of educational achievement may have been due to the passage of the Goals 2000 Act. With the increased demand for skilled workers during the 1990's, came the realization that accurate employment projections could only be made if these workers were identified as a distinct group.

Recent federal data published regarding the number of people with vocational education indicates that the rate of growth is increasing. For example, the BLS estimated that the size of these occupations would grow by 5 percent between 1986-1996, and by the much faster rate of 14 percent between 1998-2008 (Table 1). In addition to the fast growth rate of technical occupations, the absolute number of job openings that require technical training is significant. The BLS estimates that from 1998-2008, there will be 643,000 new jobs for workers with vocational training and 1,168,000 new jobs for workers with long-term on the job training (Table 1).

Table 1. Projected Employment Changes for Education and Training Categories

	Total (000's)	Total growth (percent)		Total growth (000's)		Percent of overall job growth	
Education and training category	1998	1986 1996	1998 2008	1986 1996	1998 2008	1986 1996	1998 2008
Total, all occupations	140,514	19	14	21,069	20,281	100.0	100.0
First professional degree	1,908	16	16	201	308	1.0	1.5
Doctoral degree	996	-2	23	-4	232	**	1.1
Master's degree	940	44	19	519	174	2.5	0.9
Work experience & Bachelor's	9,595	32	18	2,314	1,680	11.0	8.3
Bachelor's degree	17,379	29	24	3,624	4,217	17.2	20.8
Associate degree	4,930	37	31	1,130	1,537	5.4	7.6
Postsecondary vocational training	4,508	5	14	413	643	2.0	3.2
Work experience in related job	11,174	19	12	1,203	1,316	5.7	6.5
Long-term OJT*	13,436	11	9	1,199	1,168	5.7	5.8
Moderate-term OJT	20,521	11	7	1,889	1,430	9.0	7.1
Short-term OJT	55,125	20	14	8,581	7,576	40.7	37.4

*On the job training; ** Slight decline. Source: Herman (1999), p. 49; Braddock (1999), p. 75.

Level of Certification Reported by Private Agencies. A search yielded information regarding the number and types of certifications currently available. During the 1990's, many industry-standard certifications were developed for computer skills, (Bellinger, 1996), and there are currently 64 types of computer related certifications available (Table 2) . Other fields for which certification has become important include: mechanics, repairers, technicians, machinists, welders, carpenters, electricians, and truck drivers (58 certifications); human resources (50 certifications); health-related (28 certifications); and miscellaneous (51 certifications; Table 2). The field of certification has grown so large that publishers such as Learning Express have begun to offer test preparation for the exams similar to the test preparation that is offered for the SAT and the GMAT (Charters, 1999).

Table 2. Number of Certifications Available in Selected Fields of Study

Field of Study	Number of Certifications
Computer Hardware & Software	64
Health, Nutrition, & Fitness	28
Human Resources & Management	50
Mechanic & Laborer	58
Misc. Requiring High School Diploma	14
Misc. Requiring Bachelor's Degree	37
Total	251

Table 3 lists the major subject areas of certification and internet addresses of organizations that offer the certification. Many certifying organizations publish information regarding the dates they began offering the exams, but most do not. Nevertheless, through an examination of organizations' web sites, we found that although some certifications were offered as early as 1930 (welding) and 1950 (finance), most were developed during the 1990's. The organizations indicated that they had experienced a rapid increase in the number of people certified per year during the 1990's.

Table 3. General Subject Areas of Available Certifications*

Subject of Certification	# tests	internet address
Cisco	10	www.cisco.com & www.computerprep.com
IBM Professional Certification Program	19	www.ibm.com
Oracle	9	www.education.oracle.com
Microsoft	6	www.microsoft.com & www.avaonline.org
Telecommunication, Computer, Art, Entertainment	4	www.scte.org
Other Software and Hardware	16	www.trainingplanet.com & www.learningtree.com
Aircraft Mechanic	2	www.nemac.com
Automobile and Light Truck Repair	6	www.uticorp.com
Automotive Service Excellence (ASE)	11	www.asecert.org
Auto Glass Technician	1	www.glass.org
Crane Operators	4	www.nccco.org
Heat, Ventilation, Air Cond., and Refrigeration	5	www.natex.org
Manufacturing (standards in development)	1	www.msscusa.org
Marine Mechanic	3	www.techtraining.com
Mining	1	www.landman.org
Motorcycle Mechanic	5	www.techtraining.com
Outdoor Power Equipment Technician	1	www.eetc.org
Plastics Technologist	1	www.4spe.org
Small Engine Repair	5	www.engineservice.com
Surveying	2	www.survmap.org
Safety Supervisors	1	www.bcsp.com
Welder	3	www.welding.org
Clinical Health and Fitness	9	www.acsm.org & www.wwilkins.com
Food Preparation and Serving	9	www.acfchefs.org
Healthcare Practitioner and Technical	6	www.acacert.com
Inline Skating Instructor	3	www.iisa.org
Business, Administrative, and Financial Services	3	www.nacm.org
Certified Payroll Professional	2	www.americanpayroll.org
Employee Benefits	22	www.ifebp.org
Employee Compensation	12	www.acaonline.org
Education and Training	1	www.chauncey.com
Finance and Insurance	3	www.nacm.org
Human Resources	2	www.shrm.org
International Human Resources	2	www.ipma-hr.org
Management	4	www.amanet.org
Office and Administrative Support: Legal	2	www.nals.org & www.nala.org
Training and Development	6	www.astd.org
Ergonomics	1	www.bcpe.org
Hospitality and Tourism	25	www.ei-ahma.org
Meteorology	2	www.imageplaza.com
Substance Abuse	2	www.ccb-inc.org
Retail, Wholesale, Real Estate, and Personal Services	1	www.ssvolpart.org

*Excluding those sponsored by the NSSB and the Department of Labor.

Summary of Findings

Increased globalization, continued expansion of the service sector, and continued decline of the manufacturing sector during the 1990's led employers to demand a greater number of highly skilled workers. Employers became willing to accept new types of credentials (i.e., skill certification) in addition to their continued acceptance of college degrees. This increased demand induced several changes affecting the supply of skilled labor. (1) There have been new government initiatives to increase the skill level of the U.S. labor force. (2) There has been increased college attendance of young adults. (3) There has been expanded development of skill certification exams by private organizations. (4) There has been an increased number of workers obtaining skill certification.

There are currently more than 250 skill certifications available. These certifications are voluntary, that is, they are not legally required for entry into an occupation. The vast majority of these certifications were developed during the 1990's.

Despite this exponential growth in certifications, there has been no systematic tracking of the trend. We do not know exactly how many certifications are available or how many people have been certified. Further, we do not know the accuracy of the certification exams for measuring skill sets. In short, although workers eagerly obtain certifications and employers willingly accept certifications as indicators of skill levels, we are left with the question: Is this an acceptable practice?

The following call for future research presents guidelines that can be used to answer this question.

A Call for Future Research

Despite the exponential growth of the availability of certification during the 1990's, several key types of information are unknown. (1) The exact extent to which workers are obtaining certification is unknown. (2) Although there has been an increase in demand for workers with high skills, it is unknown whether workers with certification receive more job offers or higher wages than those received by workers without certification (Herman, 1999; Silvestri, 1997; Braddock, 1999). (3) Whether workers with certification are indeed more highly skilled than are workers without certification is unknown. The following call for future research focuses on the latter two areas.

Validity of Prediction of Labor Market Outcomes

If a particular certification is not legally required for entry into a field, and if the certification nevertheless improves labor market outcomes, then these improved labor market outcomes could be due to: the knowledge, skills, and abilities attained while becoming certified; or the prestige of being certified.

In order to determine whether certification improves labor market outcomes, and whether the improvement is due to increased skills or due to increased prestige, researchers should compare educational and labor market characteristics of workers who have been certified with those of workers who have not been certified. Such a study should survey workers regarding the extent of their education, training, and certification, and regarding their employment and wages over time.

The survey should measure employment variables including: industry; occupation; wages; number of job offers; salaries offered; and job tenure for 1990-1999. The survey also should measure educational outcomes including: degrees earned and school name; certification earned and provider name; continuing education courses attended; on the job training; and self-study type and quantity. Demographic control variables should include: gender; age; ethnicity; geographic region; and national origin. The results of this study will indicate whether workers with certification are indeed more highly skilled than non-certified workers, and the effects of certification on labor market outcomes.

Validity of Measurement of Skills

The wide variety of sources of certifications makes it difficult for employers to gauge the merits of specific certifications, and some employers are wary of accepting certifications as meaningful credentials, while other employers accept all certifications at face value. In order for an organization to determine whether to use a certification test score as a selection device, it must know whether the knowledge, skills, and abilities purportedly measured through the certification are measured accurately (Pearlman, 1997; Schmitt, 1997; U.S. Department of Labor, 1978). Validity information would allow employers to choose between workers more accurately, and would give workers clear explanations of what is required for success in the workplace, and the means to achieve a higher standard of living.

The mechanism to indicate the validity of certifications can be provided through an examination of existing certifications as per the Department of Labor Uniform Guidelines (USDOL, 1978). This examination should consist of an analysis of the validity and reliability of the tests and the credential-granting processes.

Reliability. Researchers should first determine whether the certification exams measure consistently. For written tests, researchers should examine the test-retest reliability to determine whether the exams produce similar results over repeated testings. If there is more than one version of a specific test (as there are for many), researchers also should conduct a parallel forms study to determine whether different versions of the same test produce similar results. For tests that require subjective grading (e.g., interviews or essays), researchers should examine the inter-rater reliability to determine whether the exams produce similar results across raters.

Validity. Following the reliability studies, researchers should determine whether the inferences drawn from the exams are accurate. For example, researchers should examine the content validity of exams to determine whether the importance of subtopics on exams accurately reflects the importance of these subtopics to job content. Researchers also should examine the construct validity of exams to determine whether the exams measure what they purport to measure. For example, does the Certified Payroll Professional exam measure only knowledge of payroll functions or does it also measure other types of human resources knowledge? Finally, researchers should examine the criterion-related validity of the instruments to determine whether test scores accurately predict job performance.

Conclusions

The United States experienced striking changes in its industrial mix, technology, and educational legislation during the 1990's. These changes combined to pressure the U.S. educational system to adopt new models of delivering skills and credentials. One major change in the U.S. educational system was the increased reliance upon, and prestige of, certification. Employers have been increasingly seeking employees with a skill level between a high school diploma and a bachelor's degree, and have been filling this need by hiring workers with certifications. The occupations for which these levels of skill are relevant are projected to continue to grow rapidly during the next decade, making it more important than ever that researchers determine the validity of certifications and the complete effects of certification on labor market outcomes.

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The Effect of Organizational Structure on Single-Source and Multiple-Source Performance Appraisal Processes: Implications for HRD

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The purpose of this study was to investigate ratee acceptance of single-source and multi-source performance feedback for employees working within both a loosely coupled (non-traditional) and a tightly coupled (traditional) organizational system. One hundred and eighteen nurse aides participated in a pre- and post-survey to investigate differences in employee acceptance based on the type of organizational structure in which they worked. The findings indicate at least a low-moderate degree of acceptance of both types of feedback by all participants.

Keywords: Performance Appraisal, Performance Feedback, Organizational Structure

The purpose for conducting performance appraisals has not changed much over the years, but the structure of jobs and organizations has changed dramatically. In the past 10 years, there has been a clear shift in the structure of organizations (Waldman & Atwater, 1998). Greater emphasis is being placed on decentralization, downsizing, teams, and telecommuting. The current workforce is organized differently and is not always even located geographically together (Buhler, 1997). These differences in the U.S. workforce have created enormous challenges to management and to HR/HRD professionals who are responsible for developing, implementing, and assessing systems to measure performance and provide feedback to employees at all levels and locations.

These new types of working environments are referred to as "loosely coupled" (Weick, 1976). Such systems contain parts that are related to each other but still retain their individual identity and logical or physical separateness. A tightly coupled system is the traditional work situation in which a supervisor works closely with subordinates and supervises their work on a regular basis.

The traditional hierarchical performance appraisal system does not favor the current work environment (Waldman & Atwater, 1998). Jobs have greater responsibility, more flexibility, and less direct supervision. As a result of these changes, organizations must consider alternatives to the traditional, hierarchic, supervisor-controlled performance evaluation process. These alternatives, to be effective, must have the acceptance of employees. Without such acceptance, organizations would not receive the benefits of continual employee motivation and improvement. According to Gebelein (1996), an organization only changes when its people change, and multi-source feedback supports this process in several ways. It helps the organization to 1) identify the competencies and skills needed to achieve business goals, 2) develop training programs to attain those skills and 3) track employees' progress in applying them on the job.

In order for multi-source or 360-degree feedback to be successful, it must be accepted as valid by the employee being evaluated, hereafter referred to as the ratee. Research indicates that the ratee's viewpoint is important. Ratee acceptance of the appraisal system is crucial to its long-term effectiveness (Cascio, 1995). The ratee's acceptance of the appraisal system as fair is a key component of an effective performance appraisal process, but this factor has not been sufficiently addressed by research (Latham & Wexley, 1981).

Several researchers (Church & Bracken, 1997; Funderburg & Levy, 1997; Lawler, 1967; London & Smither 1995; London, Smither & Adsit, 1997; Salam, Cox, & Sims, 1997; Tornow, 1993; Waldman, 1997; Westerman & Rosse, 1997) have examined variables related to multi-source/360-degree feedback including such issues as accountability, perceptions, and rater attitudes. Additional studies have been conducted to examine ratee acceptance of various forms of performance appraisals (Albright & Levy, 1995; Bernardin & Buckley, 1979; Bernardin, Dahmus & Redmon 1993; Gosselin, Werner & Halle 1997; Robinson, Fink, & Allen, 1996). This focus on ratee acceptance has its genesis in the work of early motivational researchers such as Herzberg (1959) and Likert (1967), who found that employee recognition, achievement, and employee involvement in decision making all led to

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increased levels of motivation and satisfaction in employees. Less attention has been focused on the role organizational structure plays in the success of multi-source/360-degree feedback. The study described in this paper addresses this gap in the extant literature. The study investigates ratee acceptance of single-source and multi-source performance feedback in both a loosely coupled and a tightly coupled organizational system.

Research Questions

RQ1: What is the difference between ratee acceptance of a single-source and multi-source performance feedback appraisal in a loosely coupled organizational structure?

RQ2: What is the difference between ratee acceptance of a single-source and multi-source performance feedback appraisal in a tightly coupled organizational structure?

RQ3: Is there a preference in ratee acceptance of a single-source versus a multi-source performance appraisal feedback system based on the type of organizational structure, specifically, loosely coupled or tightly coupled?

RQ4: How do supervisors working in a loosely coupled and a tightly coupled organizational structure view the accuracy and fairness of single-source and multi-source feedback systems?

Methodology

Sample. Sixty-one home health care aides and 57 nurse aides from a 2200-person allied health facility located in northeastern Pennsylvania participated in this survey. The home health care aides, who are not closely supervised, represented the loosely coupled structure; the nurse aides, who receive direct supervision, represented the tightly coupled structure. The majority of the participants were in the 33 to 62 years of age category and had a high school/GED level of education. The participants had a mean of 7.46 years at their current position and a mean of 6.6 years employed by the allied health facility.

Procedures. Employee satisfaction was measured before and after the implementation of a multi-source feedback system. Data was collected using pre-and post-surveys and focus groups. A proposal was submitted to the health care facility requesting permission to survey two groups of employees and to implement a multi-source feedback performance appraisal process at the health care facility for these two groups of employees. The two groups completed a pre-survey based on the existing single-source traditional performance appraisal system. Then, a new multi-source feedback system was implemented. The multi-source feedback process collected scores from an evaluation team for each employee consisting of self, supervisor, customer, and colleagues. The evaluation forms used to evaluate each person's job performance were developed by using a set of behavioral criteria developed specifically to meet the objectives and goals of the allied health facility. These behavioral criteria were directly linked to the individual's job description. Each employee participating in the research was trained on the procedures to use in providing and receiving feedback. After participating, each ratee received a graph indicating a composite score for each performance criteria evaluated.

After participating in the multi-source feedback performance appraisal process, each participant was asked to complete a post-survey. The post-survey measured their level of acceptance of this new multi-source feedback process.

The ratings from the pre- and post-surveys of both the tightly coupled and loosely coupled groups' data sets were compared to determine the impact of multi-source feedback versus single-source feedback on ratings of ratee acceptance in both a tightly coupled and a loosely coupled system. The research design is displayed in Table 1.

Surveys. The authors use the terms pre- and post-surveys throughout this paper to indicate surveys completed before and after the implementation of a multi-source feedback system. However, readers should keep in mind that the procedure used does not reflect a traditional pre- and post-survey design. The pre-scores represent satisfaction with an existing single-source evaluation system. The post-scores reflect satisfaction with a newly implemented multiple-source system. The pre-and post-surveys used in this study were modified from one developed by Edwards and Ewen (1996) and consisted of 20 Likert-type questions scaled from 1 (strongly disagree) to 5 (strongly agree). The questions measured employee satisfaction with both a traditional and multi-source feedback system. Sample questions are as follows: I have confidence (trust) in the rated results, the process provides information that will help me improve my performance, I like (the current) performance appraisal process,

Table 1. Research Design

Method Used	Groups	Participants	Pre-survey Measuring Satisfaction With Past	Multi-source Feedback	Post-survey
Single Source Feedback	Loosely Coupled	Home Health Care Aides N = 61	0_1	X	0_2 y_1-acceptance
Single Source Feedback	Tightly Coupled	Nurse Aides N = 57	0_3	X	0_4 y_1=acceptance

and the process reflects a complete assessment of performance. The pre-and post-survey instruments also asked four questions pertaining to the general organizational climate. These four questions measured employees' beliefs about appreciation of work, freedom to discuss issues with a supervisor, and the extent to which his or her work was valued.

Focus groups. In addition to gathering data from the surveys, information was collected in small focus groups. These focus groups were made up of the supervisors of both sets of employees being surveyed and were utilized to gather information regarding both the single source and the multi-source feedback processes from the perspective of the supervisors.

Limitations

The sample used in this study was representative of only one type of loosely coupled and one type of tightly coupled system in an allied health organization. Caution needs to be exercised in generalizing the results of this study to other organizations. Also, subjects in this study were in non-exempt or non-managerial positions. Data collected on managerial-level employees may yield different results.

Employees in the organization in this study were asked for feedback on a previously existing single-source feedback system and a newly implemented multi-source procedure. The novelty of the multi-source system may have influenced results.

Results and Findings

Research Question 1. What is the difference between ratee acceptance of a single-source and multi-source performance feedback appraisal in a loosely coupled organizational structure?

The data from the survey questionnaire relates to the respondents' perceptions regarding their satisfaction with the performance appraisal process being utilized by the organization at the time the survey was administered. The pre-survey measured perceptions of the single-source performance appraisal, whereas the post-survey measured perceptions of the multi-source feedback performance appraisal process. Twelve of the twenty questions had a mean value of 3.5 or higher in both the pre- and post-survey results. The remaining eight questions had scores closer to the mid range mean of 3.0, and these scores did not vary substantially for the pre-and post-survey values.

Question number five of the pre-survey asked to what extent the respondents liked their current performance appraisal process. The mean response rating for the single-source performance appraisal process was 3.0 (SD = 1.4); the mean for the multi-source system was 3.7 (SD = 1.2). However, the remaining questions reflected relatively little difference in acceptance levels of the two types of performance evaluation systems. Means for the remaining questions of the respondents in the loosely coupled group did not fall below 2.5, indicating a low-moderate acceptance rate for both the single-source and multi-source performance appraisal processes. Only on the question, "I believe the results of the performance appraisal would be used fairly for promotion purposes," did the mean score fall below 3.0. (Pre mean = 2.9; SD =1.7; Post mean = 2.8, SD = 1.7). From this it can be concluded that the respondents in the loosely coupled system perceived both the single-source and multi-source performance appraisal processes as moderately acceptable. See the appendix for a listing of the survey questions and pre- and post-scores for both loosely coupled and tightly coupled systems.

Research Question 2. What is the difference between ratee acceptance of a single-source and multi-source performance feedback appraisal in a tightly coupled organizational structure?

The pre-survey measured perceptions of the single-source performance appraisal method that was in place at the beginning of the study, whereas the post-survey measured perceptions of the newly implemented multi-source feedback performance appraisal process. Only three of the twenty questions had a mean of 3.5 or higher in both the pre- and post-survey results. The remaining seventeen questions had pre-survey scores that were lower than the post-survey scores.

Although the mean pre-survey scores were lower than the mean post-survey scores, none were below 2.5, indicating a low-moderate level of acceptance of both the single-source and multi-source performance appraisal feedback processes. As with the loosely coupled group, the tightly coupled group preferred the multi-source feedback process over the single-source process (question 5) (single-source M = 2.7, SD = 1.2; multi-source M = 3.3, SD = 1.0). In response to each question, the tightly coupled system group reported a higher mean score for the multi-source system. Thus, results indicate that the tightly coupled more traditionally structured group preferred the multi-source feedback system.

Research Question 3. Is there a preference in ratee acceptance of a single-source versus a multi-source performance appraisal feedback system based on the type of organizational structure, specifically, loosely coupled or tightly coupled?

Results are presented in Table 2.

Table 2. Mean and Standard Deviation for Differences in the Pre-Score and Differences in the Post Score Between the Loosely Coupled and Tightly Coupled Groups in the Organization

				Range			
Variable	n	*M	SD	Low	High	t	p
Pre score				43	110	2.8	0.007
Loosely coupled group	61	86.9	17.4				
Tightly coupled group	54	78.4	15.2				
Post score				40	110	0.7	0.507
Loosely coupled group	60	86.4	19.4				
Tightly coupled group	53	84.4	12.0				

*Scores could theoretically range from 22 to a high of 110.

Data reveal a significant difference (t = 2.8; p = .007) on the pre-survey (single-source feedback) between persons in the loosely coupled and tightly coupled groups. Individuals in the loosely coupled group had a significantly higher pre-score (M = 86.9; SD = 17.4) than did persons in the tightly coupled group (M = 78.4; SD = 15.2). People who worked in the more traditional environment reported a less favorable reaction to single-source feedback systems.

Data reveal no significant differences (t = .7; p = .507) on the post-survey (multi-source feedback) between persons in the loosely coupled group and tightly coupled groups. The type of organizational system, loosely coupled or tightly coupled, did not affect ratees' acceptance of multi-source performance evaluation systems.

On the questions related to organizational climate, there was a significant difference between the loosely coupled and tightly coupled groups for the question "my employer values and appreciates my work." The loosely coupled group had a mean of 3.9 (SD = 1.2); the tightly coupled group had a mean of 3.3 (SD = 1.2). For the remaining three questions, no significant differences were found.

A final question on the survey asked respondents whether they recommended continued use of the multi-source performance appraisal process. Sixty-four percent were in favor of continuing the process.

Research Question 4. How do supervisors working in loosely coupled and tightly coupled organizational structures view the accuracy and fairness of single-source and multi-source feedback systems?

Supervisors of employees in this study reported less favorable reactions to multi-source feedback than did those they supervised. Inaccurate evaluations and possible abuse of the process were mentioned as areas of concern by supervisors in focus groups. Particularly in the tightly coupled group, the supervisors believed that poorer performers received higher ratings than they deserved from people other than their supervisors.

Conclusions and Recommendations

The results of this study indicate no significant difference in ratee acceptance of multi-source performance appraisal feedback processes between employees working in newer loosely coupled organizational systems and those working in more traditional environments. Both groups indicated a moderate-range level of acceptance of a multi-source performance evaluation system. Both groups also reported a low-moderate level of acceptance of single-source systems, although workers in traditional environments were more critical of this method.

Although employee acceptance of performance evaluation systems is crucial, it is by no means the only consideration. Accuracy is also a consideration. Ratees in this study believed that multi-source feedback processes lessens favoritism and politics whereas supervisors believed that, in at least some cases, the process produces evaluations that are inaccurate, unbalanced, and less controlled than those provided by a single-source system. Future research focusing on the differences in ratings among all ratees would provide interesting and useful data.

An important consideration for any organization considering implementation of a multi-source performance feedback system is the extent to which coworkers and other raters possess the information necessary to give accurate and relevant feedback on each other's performance and the skills required to give and receive performance feedback. Research shows that people are not always skilled at giving and receiving feedback (London, Smither, & Adsdit, 1997). Candid feedback that individuals are not afraid to give or receive takes substantial effort to achieve. The responsibility for developing such skills in organizational employees falls primarily to HRD professionals.

Because ratee acceptance of a performance appraisal process has been found to be important to the overall success of the program, organizations should consider surveying the employees before a decision is made to invest in a multi-source system. Research, software, and development costs alone can range into the six-figure range. Training in the use of the system and the development of an organizational culture that encourages the exchange of honest and tactful performance feedback adds another substantial expense. None of this expenditure makes sense if employees are not convinced of the value of a multi-source system.

Implications for HRD

In today's rapidly changing organizational environment, more and more businesses are looking for improved methods of providing performance feedback. Because organizational structures have been changing so quickly, organizations have had a difficult time trying to provide accurate feedback to employees in a format that they accept. An important finding in this study was that organizational structure was not a significant factor in employees' satisfaction with the multi-source performance evaluation system.

As more organizations continue to move away from the traditional hierarchical structure, more information is needed on finding cost-effective methods of providing valuable performance feedback to employees. Studies conducted in organizations regarding the effectiveness of various feedback processes would be useful for HRD professionals facing decisions on the choice and implementation of such systems.

This study also raises questions that might be explored by additional research on multi-source feedback process design. Should direct supervisors' contribution be weighted more than that of other contributors? How should raters be chosen? What expense is involved in training raters? How satisfied over time are employees with multi-source rating systems? What are the legal implications of having multiple people involved in the performance evaluation process?

Continued empirical studies will provide information helpful to organizations facing important and expensive performance feedback systems decisions.

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Appendix
Mean and Standard Deviation for Employees Perceptions Regarding a Single Source (Pre) and Multiple Source (Post) Performance Appraisal Process in a Loosely Coupled System

		Loosely Coupled N=61		*Tightly Coupled N=57*	
Statement by Pre/Post Assessment		**Mean*	*S.D.*	**Mean*	*S.D.*
5. I like the current performance appraisal process.	PRE	3.0	1.4	2.7	1.2
	POST	3.7	1.2	3.3	1.0
6. The performance appraisal process provides useful information I can use to improve my performance.	PRE	3.7	0.9	3.4	0.9
	POST	3.7	1.1	3.5	0.9
7. I understand how the performance appraisal form is developed.	PRE	3.3	1.4	3.2	1.4
	POST	3.5	1.2	3.6	1.0
8. The rating form is easy to use.	PRE	3.9	0.9	3.4	1.0
	POST	3.9	1.0	3.7	0.8
9. The evaluation process provides information that will help me improve my performance.	PRE	3.7	1.0	3.6	1.0
	POST	3.8	1.0	3.6	0.9
10. I have confidence (trust) in the rated results.	PRE	3.5	1.2	3.1	1.2
	POST	3.8	1.1	3.6	0.8
11. I believe the results are used fairly for the following personnel decisions:					
a. Recognition	PRE	3.3	1.5	2.9	1.4
	POST	3.3	1.5	3.3	1.1
b. Promotion	PRE	2.9	1.7	2.3	1.5
	POST	2.8	1.7	2.9	1.4
c. Training	PRE	3.2	1.7	2.7	1.5
	POST	3.0	1.7	3.3	1.2
12. This performance appraisal system promotes teamwork.	PRE	3.4	1.2	2.9	1.2
	POST	3.2	1.3	3.2	1.0
13. This evaluation process provides safeguards that lessen effects of politics and favoritism in my rating.	PRE	3.6	1.1	2.9	1.3
	POST	3.6	1.2	3.5	0.9
14. I understand how the evaluation process works.	PRE	3.4	1.3	3.5	1.1
	POST	3.5	1.2	3.7	0.9

		Loosely Coupled N=61		*Tightly Coupled N=57*	
Statement by Pre/Post Assessment		**Mean*	*S.D.*	**Mean*	*S.D.*
15. This evaluation process aligns the organization's quality principles with its mission and values.	PRE	3.6	1.2	3.0	1.3
	POST	3.5	1.2	3.4	0.9
16. The evaluation process improves cooperation with my co-workers.	PRE	3.4	1.2	3.0	1.2
	POST	3.3	1.3	3.4	0.8
17. The rating results help me better serve my customers.	PRE	3.7	1.1	3.4	1.1
	POST	3.7	1.2	3.5	0.8
18. This evaluation process increases communication between myself and my supervisor.	PRE	3.7	1.0	3.5	1.0
	POST	3.6	1.2	3.5	0.9
19. This evaluation process reflects a complete assessment of performance.	PRE	3.6	1.1	3.1	1.1
	POST	3.7	1.0	3.6	0.8
20. This evaluation process reflects the importance of quality to my employer.	PRE	4.0	0.8	3.4	1.1
	POST	3.7	1.0	3.5	0.8
21. This evaluation process motivates me to increase my effectiveness.	PRE	3.9	0.9	3.4	1.2
	POST	3.7	1.0	3.6	0.7
22. This evaluation process reflects an accurate assessment of my supervisor's expectations.	PRE	3.6	1.1	3.3	1.2
	POST	3.7	1.1	3.6	0.8

Note. Questions 1-4 related to demographic information. See paragraph under the heading Sample for a description.
**Importance Scale: N = I do not know; 1 = Strongly Disagree; 2 = Disagree;*
3 = Neither Agree/Disagree; 4 = Agree; 5 = Strongly Agree.

An Exploratory Examination of the Literature on Age and HRD Policy Development

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The literature on older workers was examined to identify themes related to workers who remain, return, or retire from the workplace. Four databases were searched producing five hundred twenty three abstracts. Four themes were generated: retirement is an outdated notion, the importance of older workers to organizations is changing, older adults are active agents negotiating employment decisions, and career development programs are a worthwhile societal investment.

Key Words: Age, HRD Policy, Older workers

HRD and adult education practices for older workers should be situated in a dynamic pattern of periods of active employment, disengagement from the workplace, and re-entry into the same or a new career. The workplace becomes a dynamic space for older workers rather than a unidirectional journey leading to retirement. The roles, depending on life circumstances, might include the decision to remain in, retire from, or return to periods of part time, full time, or part season work. These work choice patterns will challenge adult educators and HRD practitioners and scholars to develop training, career development, and organizational development strategies appropriate to a third stage of working life.

This analysis views older workers as a differentiated employee group with different workplace issues suggesting an HRD framework combining functions with employment patterns. Table 1 combines the three components of HRD: training and development, career development, and organizational development with the three working patterns of remaining, returning, and retiring. A remaining worker meets the retirement qualifications of age and years of service but has chosen to continue working in a full or part-time capacity without a break in service. A returning worker has ended active paid work, experienced a period of retirement, and returned to a paid position. A retiring worker meets the age and service requirements electing to leave current work with no intention of returning. In each intersection a question is raised to assist the HRD practitioner evaluate issues of age during policy development (Stein, Rocco, & Goldenetz, 2000). The framework is useful for positing various issues in each of the blocks. This paper's purpose is to review selected literature from the fields that inform adult education and human resource development to determine how the phenomenon of older workers is treated. We define older workers as 55 years old because according to Hale (1990) in the next decade, workers over the age of 55 may exceed the number of new entrants into the workplace.

Table 1: Age and HRD Policy Development Issues to Consider

	T&D	CD	OD
Remaining	Is age discussed as a diversity issue?	Are there opportunities to change jobs within the organization?	Are there implicit barriers to promoting older workers?
Retiring	Are there learning opportunities to prepare for retirement?	Is there opportunity to prepare for life after this workspace, career, or job?	Are there policies to permit flexible employment patterns for gradual disengagement?
Returning	Are there training programs to assist with re-entry into the workplace?	Are investment made in skill development for future employment?	Do policies facilitate and or actively recruit older workers to the workplace?

(Stein, Rocco, & Goldenetz, 2000)

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Method

The purpose of this project was to examine the literature on older workers to determine the themes and issues over time exploring interaction of demographic shifts, workplace needs and values, and older workers who remain, retire, or return to the workplace. To what extent does the literature address career development issues, organizational development concerns, and/or training and development needs of older workers? Four databases from three disciplines, education, business, and psychology, were searched. They were Educational Resources Information Center (ERIC), Education Abstracts, ABI/Inform, and PsychINFO. Descriptors used were retirement, retiring, job training, training, employment practices, retraining, career development, organizational development, returning and remaining combined with older worker. Searches were limited by country (United States). All databases and each descriptor set were searched by date-- 1980 to present and 1979 and before. All database searches were done on May 25, 26, and June 2 (Table available upon request).

The ERIC search produced 898 records; 164 abstracts were selected for review. The Educational Abstracts search produced 10 records; 7 abstracts were printed. The ABI/Inform search produced 510 records; 254 abstracts were printed. The PsychINFO search produced 186 records; 98 abstracts were printed. A total of 523 abstracts were included in the review. Differences in numbers of records found in each database can be explained by the different purposes of the databases and the year each began to compile information. ERIC began collecting materials in 1966, PsychINFO in 1967, ABI/Inform in 1971, and Educational Abstracts in 1983. Educational Abstracts focus is primary and secondary education making it understandable that little would be found there on older adults.

Table 2: Search Results

	Total database count when searched	Total Number of records	Total Number of abstracts selected	Total Number of articles to be pulled
ABI/Inform Global	1,833,334 (June 2, 2000)	510	254	52
Education Abstracts	496,719 (May 31, 2000)	10	7	0
ERIC	1,023,165 (May 26, 2000)	898	164	34
PsychInfo	1,356,988 (May 25, 2000)	186	98	57
Total	4,710206	1,604	523	143

The next step was to review the abstracts and categorize them (a) by date, (b) type of journal (academic, popular, and practitioner), (c) HRD classifications (career development, organizational development, training and development), (d) deciding also if the article pertained to remaining, retiring or returning, (e) emergent trends and issues, and (f) how older workers are defined. Citation records were sorted according to the degree of fit we felt each had to the nine areas in Table 1 and labeled accordingly under the three HRD classifications with the individual decision step of remaining, returning, or retiring.

Themes were identified following procedures for thematic analysis and code development (Boyantzis, 1998). Boyantzis (1998) suggests five procedures for inductively generating themes from a data set. Procedure one is to reduce the raw information by extracting the salient features of the data. In this study, abstracts were reduced by writing a description of findings or thesis. In a second column, the researchers' observations about the abstract or groups of abstracts were written. Each researcher was assigned a database. Procedure two was to identify inductively themes within a sample. Each database was considered a sample of the possible literature. The unit of analysis was the abstract. Approximately ten percent of the entries from each sample were selected to determine preliminary themes and to develop the coding procedure for the full database. This task was assigned to one research team member. Other team members would be used for a consistency check. Themes were inductively generated from the summary statements and reflections. The third procedure compared themes across databases to determine any differences in the themes. The databases differed only in the proportion of articles addressing a theme. For example, more articles focusing on career development were found in PsychINFO than in ERIC. However both databases addressed the importance of career development for older workers.

Procedure four was to create a code set. A code has a label, a definition, and indicators. In this study the theme of retirement as an out-dated notion was created in the following manner: (a) label: working across the lifespan; (b) definition: older workers will seek employment beyond the traditional age of retirement; and (c) indicators: statements indicating alternative work arrangement to full time employment, economic necessity, and social strategies for reducing the retirement burden on future workers. Indicators provide guidance on how to recognize the theme in a unit of analysis.

The fifth procedure was to check for consistency of themes among the researchers. To determine the consistency between the primary coders' judgments and the intuitive judgments of the other research team members, the researchers discussed themes through electronic mail, telephone, and in person meetings. The last procedure was to apply the codes to the entire database. All abstracts were coded and refinements made to the themes continuing to emerge from the data.

Findings

Date

During a preliminary search little was found before 1979. The hypothesis was that this would change as baby boomers aged and became older workers. The first baby boomers would attain age forty in 1985. The number of articles written in 1985 was greater than in all other years, at thirty-six. In 1985 eighteen articles were written on training and development issues and eight on career development issues (which tied with 1995). In the area of organizational development the most articles written were in 1981 at twenty (thirty total for all three areas).

We divided our search to before 1979 and after 1980. Prior to 1979 the PsychINFO database contained 19 abstracts. ABI/Inform contained 27 abstracts. ERIC contained 193 abstracts. The number of records found prior to 1979 in ERIC can be partly explained by funding and interest being stimulated by the Comprehensive Training and Employment Act, and the Age Discrimination in Employment Act. The ERIC database produced a greater number of records but a smaller percentage of abstracts compared to the other databases. This was the result of many being international in nature, addressing unrelated issues such as social security systems, conference proceedings, or duplicate records. The number of abstracts selected 523 (Table 3) was reduced further as we found duplicate abstracts, abstracts written about countries other than the United States, and that some selected abstracts did not fit into the HRD categories.

Table 3: Search Results by Date

	Records		Abstracts selected	
	Post '80	Pre '79	Post '80	Pre '79
ABI/Inform Global	483	27	251	3
Education Abstracts	10	0	7	0
ERIC	704	194	164	0
PsychINFO	167	19	97	1
Total	1,604	240	523	4

* A prior decision had been made not to read anything written before 1980. However, we did look at relevant abstracts prior to 1979.

Age of an Older Worker

There appears in the literature considerable variation in the concept of older worker. The term older worker extends from forty years to 75 years of age. The first mention of age was from an ABI/Inform Global abstract in 1973. It is interesting to note the author's concern, "Eliminating the mandatory, arbitrary retirement-at-65 rule. Involuntary unemployment in a great and rich nation like ours is a moral wrong which should not be tolerated" (Foegen, 1973). When workers as young as 40 were mentioned it was because of (1) the formation of retirement decisions (Rosen & Jerdee, 1986), (2) the decline in training opportunities (Cooke, 1995; Rothstein & Ratte, 1990), (3) dispelling myths about age (Kaeter, 1995), and (4) needing these older workers to stay on the job to mentor younger workers (McShulskis, 1997b). When the ages 70 and 75 years are discussed it is in terms of (1) preretirement involvement (Evans, Ekerdt, & Bosse, 1985), (2) being in demand because of their experience (McShulskis, 1997b), (3) gradual work reduction and training for alternative careers (Salomon, 1982), and (4) the small numbers of septuagenarians in the workplace suggesting workers do not feel they should still be working (LaRock, 1997).

Type of Article

Academic articles were articles published in scholarly journals. Practitioner articles were published in journals and magazines aimed at working professionals and were not peer reviewed. Popular articles were publications meant for the general public. Most of the ERIC abstracts were government reports, advocacy or apologist articles (such as AARP), and program reports. We identified few scholarly, conceptual or empirical research pieces. The majority of articles in the full database could be described as written for popular or professional publications. Approximately thirty percent of abstracts were from academic journals or had an empirical focus. More academic articles were found in the ABI Inform database. Education Abstracts focused more on issues related to primary and secondary education. This explains why so few articles were found there on older adults.

Table 4: Type of Article by Database

Type of Article	ERIC		Education Abstracts		ABI/Informs		PsychInfo		Total
	Pre-79	*Post-80*	*Pre-79*	*Post-80*	*Pre-79*	*Post-80*	*Pre-79*	*Post-80*	
Academic	0	26	0	6	0	48	1	92	173
Practitioner	0	0	0	0	1	171	0	6	178
Popular	1	24	0	1	0	14	0	0	40
Others	0	16	0	0	0	0	0	0	16
Total	1	66	0	7	1	233	1	98	407

HRD categories

Abstracts were classified as organizational development, career development, and /or training and development and worker status i.e. remaining, returning, and retiring. The categories were not mutually exclusive. Abstracts on policy concerns, attitude shifts, flexible and innovative work scheduling, etc. were considered under organizational development. Abstracts on career counseling, second career alternatives, etc. were named career development, and articles on adult learning, training strategies, etc. were called training and development. The breakdown of the abstracts was: 46% organizational development, 38% training and development, and 15% career development. The distribution on work status was 56% remaining, 30% returning, and 14% retiring. Pre-retirement or retirement concerns from an organizational perspective were noticeably absent. However, the literature supports the notion that in the seventies there was greater interest in pre-retirement and retirement issues. The literature of the past twenty years seems to concentrate on retaining older workers and addresses policy, attitudinal, and training issues to keep older workers in the workplace.

Table 5: Abstracts sorted by HRD Category and Remaining, Retiring, and Returning

(Post-80)	Training Development	Career Development	Organizational Development	Total
Remaining	110	28	121	259
Retiring	9	12	34	55
Returning	52	29	52	133
Total	171	69	207	*447*

Themes

First, retirement for future older workers is an outdated notion. A noticeable shift in the literature during the period 1980-2000 is a change in the conception of retirement. From an organizational and societal perspective, the issue is not how to assist older workers retire and use leisure time but how to retain and recruit older workers. Recruitment and retention (Levine, 1988) becomes a key policy issue to satisfy the increasing demands for productivity, worker shortages, and retaining corporate knowledge (Alegria, 1992; Crampton, 1996; DOL, 1989;

Kindelan, 1998; National Alliance of Business, 1996; Ohio State Bureau of Employment Services, 1996; Rosen & Jerdee, 1986; Wolfbein, 1988). From a national perspective these issues are addressed: policy designed to ease the social security burden, (Anonymous, 1982; Cowans, 1994) age discrimination (Perry, 1995), and re-employment and continued employment of older workers (New York State Office for the Aging, 1997; O'Donoghue, 1998). By keeping older workers employed the burden on retirement systems will be reduced (Reynolds, 1994). Older workers will cycle in and out of periods of active employment. Work will become an integral part of living (Bird, 1983; Geer, 1997; Kotteff, 1998; Stalker, 1995). Incentives are needed to encourage older adults to retire later (Copperman & Keast, 1981; Eastman, 1993).

Second, organizations are experiencing an attitudinal shift seeing the value and importance of training older workers. A focus for the literature of the 80's and early 90's is on convincing employers that older workers are capable of learning. Advocates for employing older workers such as AARP (1993) produced training manuals for teaching human resource development managers how to plan and provide training programs to maintain, enhance, or update the skills of remaining and returning workers (Allen & Hart, 1998; Ennis-Cole & Allen, 1998; Poulos & Nightingale, 1997). The literature advocates employing older adults on the basis of new physiological and educational research implying that the ability to learn is not necessarily diminished by age (Chirikost & Nestel, 1991). By implementing ecological changes in training and workplace design the productivity of older adults can be enhanced (Labich, 1996; Sterns & Miklos, 1995) The literature of the 90's begins to view older adults as assets in terms of work ethic, reliability, accuracy, and stability (AARP, 1991; Catrina, 1999; Kaeter, 1995; Rothstein & Ratte, 1990). There is still an apologetic tone in that the literature is still trying to convince HRD managers and workplace supervisors that older workers are a sound investment (Catrina, 1999; Sullivan & Dupley, 1997). The literature shows that myths about aging still persist (Itzin & Phillipson, 1994; Kaeter, 1995; Lefkovich, 1992; McShulskis, 1997a; Yeatts, Flots & Knapp, 1999).

Third, older adults are active agents negotiating decisions to remain or return to the workplace. Literature on older workers exhibits this tension. Some literature characterized older workers as objects to be retrained or recruited by simply creating more flexible work schedules. The popular and professional literature addressed human resource development managers about older workers and did not consider older workers agents in the process of retraining or reentry to the workplace. Instead, older workers need to be managed (Anonymous, 1990; Elliott, 1995; Johnson & Johnson, 1983). A second and more recent view is that of the older worker making a decision to return or remain in the workplace based on availability of training, need to be engaged, or wanting to develop a second career (AARP, 1992,). Older workers become subjects of their own work experience and actively make choices about work and workplaces. Older workers are seen as entrepreneurs beginning new businesses and hiring other older workers (Institute of Lifelong Learning, 1983; Minerd, 1999). Older workers are seen as wanting to develop new skills throughout life (Tucker, 1985). Managers are advised to create meaningful work and to consider the role of work in the lifestyle of an older adult (Fyock, 1994). States should have planning processes to expand meaningful work and to help create work environments attractive to older adults (NYS, 1997). Absent from the literature are articles dealing with the re-entry problems of women and minorities. The literature does provide testimony to the problems that mid-life (defined as 35-54) and older women have in seeking job assistance and enrolling in training programs (Chalfie & Dodson, 1996; DOL, 1993; Joint Economic Committee, 1983).

Fourth, career development programs for older adults are a worthwhile societal investment (Newman, 1995). The literature of the 90's begins to introduce the value of career counseling for older adults. Community colleges and community agencies have a role in providing advocacy for employment, counseling, and developing new workplace skills. Partnerships among community agencies, educational institutions and employers are suggested as an integrated approach to retraining and for providing re-entry for older workers (Beatty & Burroughs, 1999; Burriss, 1995; Caro & Morris, 1991; Choi & Dinse, 1998; Denniston, 1983; Mor-barak & Tinan, 1993).

The notion of older worker as a resource is expressed in the literature in four phases. The older worker is addressed as a resource that can be retired after a useful working life. The older worker as a "retrainable" resource seems to occupy much of the literature as older workers are seen as necessary to the workforce. A third image of the older worker as a recruitable resource seems to become more important as the need for an experienced and flexible worker becomes a more prominent social and organizational issue. Lastly, the older worker as a retainable resource emerges as organizations compete for older workers who have more career options due to the growth of the service/information economy.

Policy and Further Research Implications

The literature on older workers begins to shift from concern for developing the individual worker perspective to that of societal concerns for engaging a significant component of the population in work. Increasing needs for productivity, financial strains on retirement systems, and a changing demographic structure are increasing the interest in older workers.

The literature tends to treat the older worker as an object of the work experience. Articles are directed to HRD managers, adult educators, and other community professionals to either consider employing, training, or advocating on behalf of the older worker. The concerns are more about designing and implementing training programs and policies for older adults than about the needs, concerns, and work aspirations of remaining and retiring workers. Literature is directed toward convincing employers that investments in older workers will be returned in improved productivity.

From an organizational policy perspective it appears that training and development issues seem to predominate the literature. A consistent theme has been the examination of how training of both management and older workers might create a more age diverse workplace. Programs focusing on retirement may be more concerned with preparing for future employment rather than complete disengagement. Training programs to prepare for re-entry are not discussed as often as opportunities to remain employed.

From a policy perspective, the literature indicates concern with barriers to continued employment as well as returning to the workforce. An examination of retirement incentives needs to be balanced against the need to recruit and retain older adults in the workforce. Employers are addressing flexible work schedules as well as policies such as elder care to attract and retain older workers. Noticeably absent in the literature are studies looking at the work strategies of women and minorities. The literature does address the difficulties women face in receiving job training and placement. However, policies and training programs that take into account life circumstances encountered by women and minorities are not present in the literature.

From an individual perspective, career development as an investment strategy just begins to become a theme. Community agencies are asked to make investments in the training and development needs of older adults. Older adults are seen as decision makers choosing when and where to return to the workforce. Investments in developing new skills for older workers is seen as a strategy for improving productivity as well as the quality of life for older adults. Adult educators especially in the role of trainer or administrator can become advocates for employing older workers, for creating meaningful work opportunities, and for addressing issues of ageism in the workplace. Helping older adults to consider second or even third careers, adjust to new technologies, and modify workplace ecology can become tasks for the adult educator.

The literature represents a retrospective view of events. To what extent are community, corporate, and governmental organizations confronting the issues and trends described? How are employers modifying the work environment and how are older adults reacting to increased interest in their skills and abilities? These are questions to consider for further research.

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The Role of the Chief Learning Officer: Implications for Human Resource Development Theory and Practice

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This study explored the role of learning leaders in organizations, through the use of open ended telephone interviews. Key findings suggest a need for a clarification of the role of these leaders, and have led to the identification of unresolved issues that fundamentally influence their capacity to function optimally. These fundamental issues are described here, and the potential for HRD to assume a more dominant role in the leadership of organizational learning is discussed.

Keywords: Chief Learning Officer, Organizational Learning, Training

Organizations have changed dramatically in recent years, influenced by a number of conditions, including the changing nature of the workforce and of work itself, changing consumer needs and expectations, revolutionary changes in communication infrastructures, and resulting economic and cultural globalization. These conditions have major implications for organizational learning, and the role of the learning leader, as discussed below.

Increased Demand for Organizational Learning

Ulrich, Von Glinow, and Jick (1993) discuss how changes in the nature of the workforce are impacting organizations, and note the recent decline in availability of individuals for jobs requiring increased competence. An aging population, a reduced number of entrants into the workforce, and the decline of quality of education in the United States, are cited as contributing to this decline.

In addition, the nature of work done in organizational settings has changed substantially. In 1880, about nine out of ten workers were involved in making or moving material things, whereas today only one in five do this work. The remaining four of five work with knowledge or in services. (Drucker, 1993). Moreover, the half life of knowledge, or the time it takes for half of a body of knowledge to become obsolete or redundant, has been estimated to be as little as twelve months in highly technological fields (R. N. Christie, personal communication, March 30, 1999). Workers are called upon more than ever to learn continuously.

Thus, the nature of work is becoming increasingly oriented toward knowledge and other intangible assets, while the entering workforce is less equipped with the skills necessary to perform this work. This situation appears even more critical when viewed within the complex context of cultural and economic globalization, and heightened competition in the resulting worldwide markets.

The current speed of cultural, technological, and economic change is reflected in the pace at which organizations must change to remain viable. Organizations that do not learn, and use this learning to facilitate change, will not survive (DiBella & Nevis, 1998; Handy, 1995; Thompson, 1995; Watkins & Marsick, 1993). The nature of this necessary change entails becoming more adept at change itself. While companies could once survive largely based on the products or services they produced, consistent productivity alone is no longer adequate to insure viability. "In a volatile, intensely competitive world, success comes from the capacity to respond and act-- not from characteristics of today's products or markets" (Kanter, 1997, p. 29). Kanter (1997) describes the "change-adept organization." Such organizations "create the capacity for continuous innovation and improvement, for embracing change as an internally desired opportunity before it becomes an externally driven threat, by mobilizing many people in the organization to contribute" (p. 5). Organizations that embrace and anticipate change-- that are change-adept-- stress innovation, collaboration, and learning (Kanter).

The necessity for organizations to change has resulted in "a push toward continuous learning for continuous improvement" (Watkins & Marsick, 1993, p. 4). Learning has become a primary focus at all levels of organizations. In the current climate, organizational learning can no longer be relegated to discretionary attention.

If organizational learning has become a requirement within organizations, who is to lead this paradigm shift,

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and what are the important components of such leadership? Traditional models of leadership do not address the needs of current or future organizations. Neither existing bodies of knowledge nor previous organizational processes can now be relied upon for prediction or guidance in this fundamentally altered set of circumstances. The solutions of the industrial era no longer work. And leadership models spawned in the industrial era do not address the needs of organizations functioning in our "post-industrial paradigm" (Rost, 1991). Industrial era models of leadership cannot adequately address the needs of organizations in need of continuous learning and change. "Top-down" approaches to leadership, common in traditional multi-layered, hierarchical organizations, are no longer useful or productive.

New models of leadership are urgently needed, and must be further developed to encompass the need for accelerated learning in organizations. As Bennis (1992) points out, "The organizations of the future will be networks, clusters, cross-functional teams, temporary systems, ad hoc task forces, lattices, modules, matrices, almost anything but pyramids" (p. 5). And he notes, "the ones that succeed will be less hierarchical and have more linkages based on common goals rather than traditional reporting relationships" (p. 5).

Organizations are being transformed, giving way to designs intended to evoke higher levels of participation and responsibility from individuals and teams throughout the organization. Such models seek to make use of knowledge that resides at all levels of organizations. Leadership must be transformed accordingly, in order to make optimum use of this knowledge.

And while recently introduced technology acts as a substantial driver of the nature and pace of change, the presence of technological systems for learning and information sharing has not diminished the need for (human) learning proponents to provide deep learning opportunities. "Technology-based learning systems will take over most of the easy training; deeper penetration will still require the talents of real-live professionals, such as when an organization seeks a commitment to a vision or wants to make its values explicit" (Plott & Humphrey, 1996, p. 48). Thus the need for learning leadership in organizations may be seen to be greater now than at any previous time in history. Questions regarding the optimal source and nature of such leadership have only begun to be articulated, and remain almost entirely uninvestigated.

Purpose of the Study

In examining the status of learning in organizations, Willis (1991) questioned the lack of learning leadership positions within them. "Organizations appear to be a long way from making systemic commitments to learning or to institutionalizing the learning function. The idea of creating a chief learning officer (CLO) can be presumed to be a rarity if it exists at all" (p. 182). She noted that, although organizations routinely expect to employ a chief executive officer (CEO), a chief financial officer (CFO), and a chief operations officer (COO) , there is no "equivalent status, structure, centrality, accountability, or permanence for organizational learning" (p. 183).

Since Willis made these observations, the position of the Chief Learning Officer (CLO) has indeed been created in many organizations. However, prior to this study, the role of the CLO had only begun to be described, generally in the form of single subject case studies or published interview reports. No exploratory research evaluating the scope and organizational impact of the position, from the perspectives of those doing the job, had yet been attempted.

Research Questions

The following research questions provided the focus for this study.

1. How do Chief Learning Officers (CLO's) define their primary responsibilities within their organizations? How do they describe their roles in relation to learning and leading?
2. What level within organizations do CLO's occupy? To what extent and in what ways do CLO's view their organizational positions as supportive of their defined functions?
3. What aspects of organizational infrastructure are seen by CLO's as supporting (vs. impeding) their ability to work effectively?
4. What leadership theories are congruent with the CLO's' role within organizations? How do CLO's describe their own approaches to leadership?

Design and Methods of the Study

The study used a qualitative case study design, and employed open-ended telephone interviewing using a structured interview guide administered by the researcher. In addition, available documents from the participants' organizations, such as organization charts and mission statements, were collected for analysis. This study was designed to yield participants' perspectives on their purposes, ideals, and organizational support and impediments related to their role as Chief Learning Officer. The use of open-ended questions also allowed for the expression of individual perceptions falling outside the direct target areas of the stated questions.

Telephone interviews with 14 participants were conducted. Interview sessions were tape-recorded and transcribed verbatim, to enable thorough content analysis of all responses. The use of telephone interviewing presented limitations that impacted the quality of the data collected. For example, audibility of responses was compromised in some cases; in one case, a tape ended prior to the interview's end, unbeknownst to the researcher. Also, because respondents were generally speaking from their work environments, some interruptions occurred, and the flow of interviews was disrupted.

The population from which the sample was chosen was a group of Chief Learning Officers, or persons filling this role, in organizations of any kind; persons who previously worked in this role for at least one year were considered as appropriate participants as well. Twelve respondents are from the United States, with one respondent from Belgium and one from Ontario, Canada, also participating.

The study included learning leaders from fourteen organizations. Participants were employed in organizations ranging in size from 1,400 to 330,000 employees, and from only one site to being globally distributed. Eleven of the leaders are men, and three are women. Additionally, one woman was a co-participant with the leader to whom she reported. At the time of the interviews, three respondents were no longer in learning leadership positions. In two cases, the position had been eliminated; in the third case, the respondent had retired. In the two cases where the position had been eliminated, one respondent was still professionally involved with the organization but was no longer employed there. The other had been re-positioned elsewhere in the same organization. All three of these respondents were asked to draw from their experience while in their learning leader positions.

Following data collection, content analysis was conducted on the transcribed participants' responses to the interview questions, as well as on documents collected. The analysis was performed using "EZ Text" software, designed and created by the Center for Disease Control (Carey, Wenzel, Reilly, Sheridan, Steinberg, and Harbison, 1998) for the collection, management and analysis of semi-structured qualitative data. Data were analyzed inductively, for emergent themes. All analyzed data were used for the development of grounded theory, first described by Glaser and Strauss (1967), pertaining to learning leadership. Final interpretation of the analyzed data led to preliminary answers to the research questions. Descriptive and prescriptive information has been drawn from the data, describing the elements of organizational learning leadership addressed by the research questions, as well as elements of concern which emerged from participants' responses.

Results and Key Findings

Analyzed results are summarized in data tables, with frequencies of responses, for each of the research questions.

Question One: How do Chief Learning Officers (CLO's) define their primary responsibilities within their organizations? How do they describe their roles in relation to learning and leading? (n=14)	
Primary responsibilities and role descriptions include:	
• *designing, modifying or supporting training or learning processes*	10
• *creating or modifying either the infrastructure or processes for learning*	5
• *developing or planning organizational strategies*	5
• *developing or modifying internal systems and structures (beyond training-related)*	5
• *supporting the work of others in the organization*	3
• *bringing in information from outside & making it available to people in the organization*	3
• *building or supporting external relationships, public relations*	3
• *introducing a new or different perspective into the organization*	3
• *working with human resources*	2
• *acting as an internal information carrier or connector of people*	2

Key findings that suggest significant implications for Human Resources Development researchers and practitioners are discussed below. These relate to models of leadership, and the role of Human Resources Development (HRD) in Organizational Learning.

Models of Leadership

The approaches to leadership described by these learning leaders mirror several descriptions in the literature of a new model of leadership. Post-industrial, participatory approaches, as described by Rost (1991), are being employed

Question Two: What level within organizations do CLO's occupy? To what extent and in what ways do CLOs view their organizational positions as supportive of their defined functions? What would they like to change? (n=13)	
Descriptions of the positioning of the learning leaders within their organization include:	
The position's level in the organization:	
• *is a senior level executive, managing partner or director*	7
• *is positioned fairly high in the organization, but not a top executive*	4
• *reports directly to the CEO*	2
The position's relationship to the Human Resources function:	
• *is part of the Human Resource function*	7
• *is not part of Human Resources; no direct linkage*	4
• *is not part of, but works very closely with, Human Resources*	2
The learning leaders' recommendation for change in their positioning:	
• *did not recommend a change in structure*	5
• *recommended that the position should be higher in the organization*	4
• *made other recommendations for changes in position*	4
The extent to which their positioning is supportive:	
• *the position within the structure of the organization is generally supportive*	10
• *the position within the structure of their organization is generally not supportive*	3

Question Three: What aspects of organizational infrastructure are seen by CLO's as supporting (vs. impeding) their ability to work effectively? (n=14)	
Aspects of infrastructure (culture, communications, leadership, systems and structures) described include:	
Relating to organizational culture:	
• *there is a culture that values or expects knowledge or learning*	7
• *there is culture that is participatory*	5
• *there is a culture of excellence, with bright, achievement-oriented people*	5
• *the culture includes caring about people (employees and/or customers)*	5
• *people want learning to be fast; goals or work are valued more highly*	5
• *the organizational culture is changing*	5
• *there is resistance to change or a sense of insecurity in the culture*	4
• *people use or rely on the organizational values or principles*	2
Relating to organizational communication:	
• *there is face to face communication with others in the organization*	10
• *there are technologically-networked communications*	10
• *paper-based forms of communication are used (newsletters, magazines, etc.)*	8
• *the organization is exploring or developing new or expanded technological media for communication or training*	5
• *there are systems or processes in place to support the upward flow of communication*	4
• *there is an effective infrastructure for communication*	2
• *it is difficult for new ideas to surface*	2
• *there is an over-reliance on technology for communication*	2
Relating to approaches to leadership:	
• *approaches to leadership have recently changed or are currently undergoing change*	5
• *the organization is hierarchical or follows a chain of command process*	5
• *there is work to develop leadership competencies in everyone; everyone seen as a leader*	3
• *the CEO and/or top executives support the learning function*	2

by many of these leaders. Kofman and Senge (1995) explain that leadership in learning organizations is necessarily quite different than leadership in traditional, hierarchical organizations. "In essence, the leaders are those building the new organization and its capabilities... " (p. 34). Many of the study's respondents appear to be leaders of this new type. They describe a major emphasis on the professional development of the members of their organizations through on-going learning opportunities and requirements, addressing such issues as employees' leadership abilities, specific job-related skills and knowledge, personal autonomy, and problem solving ability.

Question Four: What leadership theories are congruent with the CLO's' role within organizations? How do CLO's describe their approaches to leadership? (n =13)

Leadership theories and approaches to leadership described include:

developing autonomy of others, or supporting their freedom to execute ideas	7
laying out a vision, working to build a shared vision, or supplying a goal	6
using situational leadership theory, situationally based leadership	3
working to support and challenge others	3
asking questions	3
taking a developmental approach	3
sharing or interchanging roles and responsibilities	2
working in teams or being team-based	2
participative or participatory styles	2
thinking systemically or taking a systems approach	2

The relational aspects of this new paradigm of leading, as discussed by Zand (1997), are also described as areas of focus by these respondents. The respondents expressed this idea as they described the importance of face to face communication, an organization that "cares" about people, and the presence of trust, high levels of interaction between themselves and others, and systems for mutual feedback between people at various levels within the organization.

Also, in support of learning and leadership development in the members of their organizations, these leaders are working to increase and improve the interpersonal relationships among organization members. They described their efforts to reduce the emphasis on status associated with titles, to create forums where people can speak freely without regard to their level in the organizations, and to reduce the extent to which business units function in separate "silos," by improving communication processes and addressing issues of organizational structure.

However, the findings of this sample reflect that in some cases, these learning leaders do not feel sufficiently empowered within their organizations to affect the degree of change they envision. Several leaders indicated they believe their position within their organizations should be higher, possibly reflecting a desire for greater positional power. It may be that there is an inherent conflict of leadership paradigms in many organizations, wherein one or all of the highest executives and "leaders" espouse the value of situational, developmentally focused, participatory leadership approaches, but the structure and many of the day to day operations of the organization are inherently hierarchically based.

Further, the respondents' descriptions of their own roles, assessed collectively, suggest a level of internal inconsistency within the role itself, as it is currently defined. Roles and responsibilities described by this sample included such things as designing, modifying, or supporting organizational training and learning processes; supporting the work of others; building or supporting external relationships; and introducing new perspectives into their organizations. These selected responsibilities may be seen as fundamentally relational and responsive, rather than directive and pro-active; the responsibilities of the learning leader often include serving and supporting others' needs and/or agendas. In organizations that largely still function in hierarchical ways, the supportive nature of the role of the learning leader, paradoxically, may have implications for the level and types of leadership afforded to learning leaders within organizations. Particularly in cases where the learning leader's approach to leading is less directive than that of his executive counterparts in other areas of the organization, his or her legitimate leadership power may be compromised. The findings of this study may reflect that learning leaders, perhaps more than other leaders within the same organization, seek to "influence" rather than to "drive" change, within environments that are still largely governed by the value of "driving" change and achieving results.

The Role of Human Resources Development in Organizational Learning

The traditional role of HRD includes the development of employees through education, which is a primary focus of the learning leaders in this sample. Most of the respondents in this study indicated that they belong to, or closely work with, Human Resources (HR) or HRD. However, it is clear that the impetus for the creation of the learning leader's position did not originate within HR or HRD. The conceptualization and description of the position of Chief Learning

Officer originated in the HRD literature (Willis, 1991); this sample of learning leaders generally did not acknowledge recognition of this fact. It may be that in general, they are unaware of it: few of the respondents in this sample received degrees in the field of Human Resource, and although several had served in previous HR positions, none specified having held previous positions in HRD.

It appears that HR and/or HRD are sometimes viewed by the respondents or others within their organizations as limited in their ability to embrace the larger issues associated with facilitating organizational learning. In addition to the limiting perspectives of the role of HR/HRD within organizations described by this sample, role confusion occurs among various units. For example, multiple units with overlapping fields of interest and spheres of responsibility related to HRD often exist in the same organization. One corporation may have staff assigned to organizational development, organizational learning, and human resource development; each may have specific areas of responsibility related to learning and employee development. Yet, functional boundaries often prevent deep collaboration. It appears that a new framework for understanding and operationalizing improved individual and organizational learning and performance is urgently needed.

Willis (1991) provides the basis for such a framework; she discusses the potential for a shift in organizations to include an understanding of the role of the HRD function as central to organizational learning.

If HRD is to house the position of the learning leader, a review of the role of HRD professionals is relevant. McLagan (1989) defined a set competencies of HRD professionals that may serve as a foundation to begin to more completely describe the role of the organizational learning leader. She describes the following eleven roles for HRD practitioners: 1) researcher; 2) marketer; 3) organization change agent; 4) needs analyst; 5) program designer; 6) HRD materials developer; 7) instructor/facilitator; 8) individual career development advisor; 9) administrator; 10) evaluator; and 11) HRD manager.

Many of McLagan's (1989) eleven roles have relevance to the role of the learning leader. Research questions within this study addressed how leaders describe major aspects of their responsibilities and how they view their roles, as well as their approaches to leadership. Findings from these questions are juxtaposed with McLagan's roles below. (Findings that fall outside these categories are excluded.)

In reviewing the information above, it is apparent that learning leaders' view of their roles overlaps to some degree with the roles defined by McLagan for HRD practitioners. However, the roles differ in substantial ways, such as in the role of evaluator, which is lacking from findings from the learning leaders regarding their primary responsibilities. Also, while McLagan's role descriptions appear to focus on processes internal to the organization, learning leaders also appear, in some cases, to have responsibilities for relations beyond the organization, such as building or supporting external relationships and public relations, or introducing a new or different perspective into the organization. Linking the organization to the larger community, socially and through knowledge sharing, appears to be part of the role of the learning leader, although many respondents did not report relationships with the larger community as a focus of their organization.

McLagan's roles do not address high level leadership responsibilities, and as such may not be an adequate basis to begin to clarify all of the primary roles for learning leaders. However, some of the HRD practitioner roles are highly relevant and may be considered crucial to the effective practice of learning leaders.

The list of roles provided by respondents can serve as a point of reference for understanding the essential sphere of responsibility of the learning leader. The overlap with HRD roles is great, and suggests that HRD may be the appropriate setting within which the learning leader should be positioned. The findings of this study reflect that HRD has not been a driver of organizational learning. Generally, HRD has not chosen to play a substantial part in establishing the norms, values, systems and structures necessary to facilitate organizational learning. Yet, HRD is well placed within organizations to assume a fundamental role in organizational learning. Has the traditional role of HRD as supportive rather than proactive, in relation to profound organizational change, contributed to HRD being unprepared to assume such a primary role in organizational learning? Further attention from HRD researchers and practitioners is urgently needed.

Conclusion

The findings of the study suggest that the individuals in this sample are dedicated to new approaches to individual, team, and organizational learning, and that development of individuals and the development of organizations are intrinsically linked within the sphere of responsibility held by these leaders.

However, even a working definition of a learning leader appears to be lacking in this sample. Although "knowledge management," per se, was mentioned by very few of the respondents as an area of focus, the majority of them described a focus on supporting learning processes of individuals, teams, and the organization as a whole. While

McLagan's Role	***Related Responsibilities or Activities Described by Respondents***
Researcher (identifying and testing new information)	▪ *bringing in information from outside, and making it available to people inside the organization*
Marketer (of viewpoints, programs)	▪ *introducing a new or different perspective into the organization* ▪ *acting as an internal information carrier or connector of people*
Organization Change Agent	▪ *laying out vision, or working to build a shared vision or supplying a goal* ▪ *developing or modifying internal systems and structures (beyond those associated with training)* ▪ *developing or planning organizational strategies* ▪ *designing, modifying or supporting training or learning processes* ▪ *creating or modifying either the infrastructure or processes for learning*
Needs Analyst (related to employee performance gaps)	▪ *designing, modifying or supporting training or learning processes*
Program Designer	▪ *designing, modifying or supporting training or learning processes* ▪ *creating or modifying either the infrastructure or processes for learning*
HRD (instructional) Materials Developer	▪ *designing, modifying or supporting training or learning processes*
Instructor/Facilitator	▪ *designing, modifying or supporting training or learning processes*
Individual Career Development Advisor	▪ *supporting the work of others in the organization* ▪ *developing autonomy of others, or supporting their freedom to execute ideas* ▪ *using situational leadership theory, situationally based leadership* ▪ *working to support and challenge others* ▪ *(leading by) asking questions* ▪ *taking a developmental approach*
Administrator (coordinator and supporter of programs and services)	▪ *supporting the work of others in the organization*
Evaluator (of impact of interventions, on individual and organizational effectiveness)	*(No related findings)*
HRD Manager (supporting and linking a group's work with that of the whole organization)	▪ *working with human resources*

increasing attention is being paid in organizations to supporting and developing such things as "intangible assets" and "knowledge capital," the role of various leaders within organizations in supporting knowledge and learning processes remains unclear.

There seems to be ample evidence of a widespread recognition that it is the people within organizations, including their ability to learn and share knowledge, that are the most fundamental determinant of its potential for success. Yet, organizations are often still structured in ways that do not reflect this recognition: learning leaders are being recruited and hired into organizations that are not designed to support organizational learning as the foundation for organizational success.

Conflicting Organizational Paradigms

Based on these findings, it appears there may be conflicting paradigms within many of these organizations-- not only amongst various individuals at various levels, but also within individuals themselves. One paradigm embodies a "business-centered" worldview; the other embodies a "learning-centered" worldview, as regards the essence of organizational purpose and activities. The tacit assumption that these paradigms are marriageable may be the foundation for the rather schizophrenic approach to organizational learning and change reflected by these findings. Within a business-centered paradigm, learning is valued primarily for its instrumental value; within a learning-centered paradigm, organizations are seen essentially as learning systems. According to Willis (1991), organizations' inability to recognize themselves as learning systems is limiting and problematic. She cautions, "That such limited learning may exact heavy penalties in an organization over the long run is not easily understood, perhaps because organizations do not think of themselves as learning systems" (p. 182).

In the collective organizational climate described by these leaders, learning may be insufficiently understood in terms of an appreciation of and adherence to a viable theory of adult learning. As described by this sample, expectations for optimal learning opportunities include that they should be fast, "just in time," interactive, collaborative, relational, technologically enhanced, responsive, and pro-active. Information should be made available to support the agendas of others, and it should be self-directed. The unresolved contradiction inherent in the attempted union of two conflicting paradigms certainly warrants further investigation. The ability of the learning leader to effectively carry out her or his role in such an environment is likely to be significantly compromised. It appears that organizations that do not view themselves fundamentally as learning systems, will not serve as supportive settings in which to conduct the range of activities associated with this role.

Implications for Human Resources Development

Within this sample, the impetus for enhancing organizational learning has generally not originated within HR/HRD. A number of respondents in this study alluded to perceptions-- either their own or those of other organization members-- of HR/HRD as either not being well-acquainted with business issues, and/or not holding sufficient status in their organizations to drive organizational learning. A number of questions arise that suggest future investigation. Are the perceived limitations of HRD well founded, in terms of its potential for expansion to include the role of leading organizational learning? To what extent is HRD able to undertake and successfully achieve initiatives to broaden its role in organizations, to influence not only explicit processes of learning but also organizational functioning in other areas? Are there possible benefits to closer alliances between the functions of organizational development and training departments within organizations? Future research will be necessary to investigate these questions.

It is apparent that developing and filling a learning leader position within an organization, if not accompanied by systemic support for deep change, is unlikely to lead to the transformation of the process of organizational change. Although progress has been made in the understanding of what is needed to enable deep, continuous learning to occur, much more work needs to be done. As Willis (1991) states, "The recovery of personal and collective self-efficacy in organizations is surely a first-order task" (p. 185). This explorative study served to highlight areas of focus for future consideration and investigation, to inform and enhance the efforts of those HRD professionals committed to the development of true learning cultures in organizations.

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Anticipating Management Development Needs

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The increasingly turbulent environment in which organisations and managers are operating challenges the relevance of existing management development. This paper reports on a project designed to identify the key changes and predict the future skill needs of managers in Britain. The project involved researching changes in the external environment and inside organisations, drawing inferences from this analysis concerning the competences and competencies managers would need for the future and eliciting the views of leading HRD experts.

Keywords: Management Development, Competence, Skills Foresighting

The importance of linking management development with organisational strategy has been acknowledged in recent HRD literature (Hussey 1996; Michael 1993) especially where development is used to support strategic change (Marsh 1986; Pate and Nielson 1987) and restructuring (Oram and Wellins 1995) or where strategic development is seen as the key to competitive advantage (McClelland 1994; Shröder 1989). At the same time, the increasing turbulence of the modern environment, emphasised for over a decade by leading management writers as well as academic commentators necessitates ever more management development and makes it vital for development to support strategy.

The problem is that the uncertainties and discontinuous changes have become so great that there is a risk of management development focusing on skills needed yesterday and today rather than those for tomorrow. Senior management have discovered the need for organisational strategy to be flexible and emergent, but has the HRD profession kept pace or is management development getting left behind? Can we anticipate management development needs to ensure that managers are prepared for the uncertain future?

In the UK, where historically managers have typically been inadequately trained and poorly qualified in comparison with the US, Germany and Japan, few companies integrated development into their strategic planning process (Miller 1991). There is some evidence that the situation improved during the 1990s, with an increase in the volume of development linked to organisational strategy (Harbridge Consulting Group 1993; Winterton and Winterton 1999). However, in a major review of management development in the UK, the Taylor Report (Institute of Management 1994) noted that managers expected to consolidate the evolving practices they had already begun to implement in the 1990s, a philosophical approach which the authors felt inappropriate for Millennium thinking, given the 'chaotic and ambiguous world painted for us by the opinion formers'.

In order to address this problem, the UK Department for Education and Employment (DfEE) commissioned a review of the future skills needs of managers (FSNM). The main aim of the FSNM project was to identify and evaluate the nature of changes affecting managers and to interpret the impact these will have on the skills that managers need for the future. The FSNM project re-visited the issues that the Ashridge study addressed for the Taylor Working Party (Institute of Management 1994), along with wider environmental changes, drawing upon the extensive literature that has emerged in the intervening years and analysing the implications for managers' skills in the light of recent management competence frameworks.

Theoretical Framework

The analytical framework used to situate changes both in the external environment and within organisations was derived from the model developed by Winterton and Taplin (1997) to analyse contemporary industrial restructuring. Using this framework, a conventional PEST (political - economic - social - technical) approach was taken to the external changes, while key changes within organisations were also considered, including organisational restructuring, involvement and participation, new forms of work organisation, knowledge organisation and technological innovation.

For analysing future skill needs and difficulties, two further theoretical frameworks were employed. In relation to skills difficulties, the approach used by Johnson and Winterton (1999) for the *Skills Task Force*

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Research Group, was adopted in which skill *shortages* - 'a genuine shortage in the accessible labour market of the type of skill being sought and which leads to a difficulty in recruitment', were distinguished from skill *gaps* - 'where a deficiency in the skills of existing employees or new recruits reduces business performance rather than being manifested in a current recruitment difficulty'.

The FSNM project was concerned with both skill shortages and skill gaps for managers, but was more *qualitative and predictive*, focusing on the nature of the skills that managers will need in the future, given the changes predicted in organisations and in the external environment in which they operate. Management skills were defined in terms of both *competences* and *competencies*, where *competence* relates to the specific demands of the job in question whilst *competency* refers to the personal and behavioural characteristics needed to perform competently.

In exploring skill needs of managers, the FSNM project used the 'holistic model of professional competence' offered by Cheetham and Chivers (1996; 1998), distinguishing five dimensions:

- Cognitive or knowledge-based competences, including underpinning theory and concepts relevant to an area of activity, as well as informal tacit knowledge gained experientially. Knowledge (know-that) underpinned by holistic understanding (know-why), is distinguished from competence (know-how).
- Functional competences, those things that 'a person who works in a given occupational area should be able to do ... [and] able to demonstrate' (ED and NCVQ 1991).
- Personal or behavioural competency, as used in the USA, as a 'relatively enduring characteristic of a person causally related to effective or superior performance in a job' (Spencer 1995: 144).
- Ethical competencies, 'the possession of appropriate personal and professional values and the ability to make sound judgements based upon these in work-related situations' (Cheetham and Chivers 1996: 24).
- Meta-competencies, concerned with the ability to cope with uncertainty, as well as with learning and reflection (Nordhaug 1993).

Research Questions or Propositions

The project steering group at the DfEE posed four broad questions:

- How will political, economic, social and technological trends impact upon the future managerial role?
- What are the key competences (skills, knowledge and understanding within the work context) and competencies (attributes of an individual related to effective or superior performance in a job) that future managers will require?
- What areas of training and development will managers need to operate effectively in the new environment, and what aspects may become obsolete for managers as a result of these trends?
- How must the UK supply of management development adapt to meet these needs?

This paper focuses on the first two questions and reports especially on the future skills that managers will need in order to cope with the emerging trends.

Methodology

The study was undertaken in three parts: a review of the relevant literature to identify key trends and issues; an analysis of the implications of these trends for the skills managers will need in the future; and consultation with leading experts to validate the analysis and identify key policy issues.

Literature Review. A systematic and comprehensive review of the literature was concerned with identifying contemporary changes that will affect the management role, future projections of these areas of change and trends in management development. The review addressed both academic and practitioner literature, including recent work of management 'gurus', to provide coherent theoretical underpinning for emergent trends and practices. The literature review was undertaken as a meta analysis, tracing distinct themes through a variety of different sources and summarising conclusions in relation to each theme to produce an overall synthesis of the arguments. This approach was adopted to maximise the validity and reliability of the conclusions.

Analysis of themes.- The review of contemporary changes was initially structured around the themes highlighted in the restructuring model referred to earlier and other themes emerged in the course of the meta analysis. Future projections in relation to the themes were treated as scenarios for consideration. The effect of each of these aspects of change on managerial roles and skills was then reviewed, drawing especially upon the literature linking emerging management theory and practice with the changes.

New management ideas were analysed, especially where these appeared to be influential and the authors had attained 'guru' status according to secondary analyses, while emerging management practice was considered in relation to innovative and successful leaders in business. Recent empirical work on management development was another focus of the literature review. Systematic collation of the findings of these studies further informed understanding of the future skills needs of managers.

Consultation exercise. A checklist was developed from the main messages arising from the literature review and the key themes emerging from the analysis, and this was used to guide discussions with leading experts in the UK, USA and France. The consultation checklist, which was circulated to the experts in advance of the discussions, summarised the key themes emerging from the literature review and posed a number of questions focusing on the management development implications of trends identified over the next ten years or so.

The checklist provided a framework to ensure that a consistent set of issues was addressed across the range of experts. The main purpose of the consultations was to test reactions to the emerging conclusions, identify any areas of fundamental disagreement and obtain feedback on the key priorities from acknowledged experts in the relevant areas. The results summarised below represent the study team's interpretation of the messages arising from the literature review and the feedback from the consultation exercise. In the interests of brevity sources are not identified; full details may be found in the official report (Winterton *et al* 2000).

Results and Findings

In all sectors of the UK economy, organisations are confronted with chaos and ambiguity due to rapid and profound changes in the external environment. These changes, along with consequent internal changes in organisations are creating new challenges for managers. The study offers a comprehensive overview and analysis of these changes and their implications for management skills and management development. The results are summarised in three parts dealing, respectively, with changes in the external environment, changes predicted in organisations and the nature of the skills that managers will need in the future as a consequence.

The Challenge of the External Environment

The future is, by definition, in part a product of the past and present so will be characterised by a combination of continuity, continuous change, and discontinuous change. Experts agreed that the future would be radically different from the present, not only because of the *pace* of change, but especially because of the *discontinuous* nature of key changes. The PEST analysis revealed the following key issues.

Political. Changes in the political environment have had a major impact upon organisations since the 1980s. In the UK, the major changes have involved de-regulation of markets and efforts to stimulate entrepreneurial activity. In the foreseeable future, further product market de-regulation can be anticipated as a means of stimulating competitiveness, which will demand that more attention is paid to entrepreneurship and adaptability, two pillars of the European *Employment Strategy*, which will increasingly influence the employment framework in which organisations are operating. The 1992 Programme of the European Community included measures designed to reinforce competition and to deregulate product markets, with the aim of increasing the competitiveness of Europe's enterprises in the global economy. The Social Chapter was developed to reduce the risk of 'social dumping' and now that the UK has adopted this, it is likely that European initiatives to stimulate employment will include an extension of labour market regulation. It is similarly inevitable that European regulation in relation to protection of the natural environment will increase in the future, as environmental issues become increasingly important to business. Managers will need to have a better understanding of the environmental and social responsibilities of organisations in the future and will need to develop competence in recognising the environmental consequences of their organisations' actions.

Economic. The major economic change affecting the environment in which organisations and managers operate is restructuring, driven largely by globalisation and internationalisation, which has led to a significant increase in the number of small firms and a global shift in relations between the world's major trading blocks. The restructuring that began in the 1980s in response to the economic crises of the 1970s continued throughout the 1990s, becoming ever more dramatic.

The global restructuring of production systems has been accompanied by the emergence of supply and distribution networks based on subcontracting, franchising and strategic alliances. These economic changes, coupled with the political initiatives in the UK designed to stimulate entrepreneurial activity, have led to a growth in the relative importance of small and medium sized enterprises (SMEs) in the UK economy. In the future, the importance of SMEs in the economy will continue to increase and managers, even in larger organisations, will need to develop skills associated with networks and working with SMEs.

Social. Among the major social trends of relevance to this study are demographic changes, movements in the gender composition of the labour force and the growth of atypical work.

Part-time employment is currently growing at a slightly faster rate than full-time employment, a trend that is expected to continue for the immediate future. All forms of 'atypical' work, including home working, casual and temporary working, sub-contracting and self-employment, have grown since the 1980s. The trends of increasing female participation in the labour market and the growth of atypical work are both expected to continue into the next decade making gender issues of paramount importance. Both the increasing proportion of managers and administrators in the workforce and the increasing proportion of women in these posts are trends that are expected to continue in the coming decade, leading to HR policies and practices to retain highly talented mid-career women managers.

Technological. The convergence of information and communications technologies with the integration of computing, telecommunications and audio-visual technologies is facilitating the emergence of the 'Information Society' and 'Knowledge Based Organisations'.

The development of flexible microelectronics-based innovations was widely seen during the 1980s either as the driving force of change or at least as a facilitator of change in the production paradigm. Technological advances are expected to continue to accelerate in the future, with microprocessors becoming incorporated in more everyday objects. The use of computers and mobile telephones will continue to increase and as the cost of greater processing power falls, more of the population will access the new technologies.

The Changing Organisation

Profound changes are taking place within organisations, partly in response to the changes in the external environment. The key trends are considered below in relation to organisational restructuring, empowerment, new forms of work organisation and the adoption of new technologies.

Organisational restructuring in large part reflects the changing external environment to which managers have to respond. De-layering, involving the removal of tiers of middle management, is part of a wider set of changes in organisation structures that began during the 1980s, promoted by the development of business process re-engineering. Although further BPR, downsizing and de-layering can be expected in sectors that have been relatively insulated from global competition, such changes are generally waning. Nevertheless, the legacy of past downsizing means that managers must adopt different ways of working with teams and will be unable to rely on hierarchical command and control approaches.

The growing importance of SMEs and the emergence of extensive networks of supply-chain linkages, accompanied by developments in ICT, have facilitated flexible firm strategies. Outsourcing and flexible organisations will continue to grow in importance as rapidly changing markets demand ever greater responsiveness and adaptability, but managers will need to focus on retaining core competence within the organisation.

Empowerment has become essential as traditional company structures are replaced by horizontal structures of cross-functional core process teams. Employees are empowered as a result of initiatives to build involvement, participation, team working and autonomy.

The old adversarial patterns of industrial relations have been replaced by collaboration and partnership between unions and employers. Employee involvement is therefore expected to increase in the future and to evolve along the lines of the European social partnership model. The future will demand greater team working, more autonomous working and devolution of responsibility; managers will need to acquire appropriate facilitation and coaching skills to develop the full potential of others.

New forms of work organisation are emerging because globalisation and market segmentation both demand and facilitate fundamental change in the dominant production paradigm.

Further market fragmentation is anticipated in the future, demanding faster response and greater adaptability, which can best be achieved by adopting some form of flexible specialisation. Teams of workers who are forever changing and evolving to take advantage of core competence will replace traditional organisations. New forms of work organisation, combining multi-skilling with autonomous work groups, will form a major part of the European trade unions' agenda for training and development in the future, and managers will need to develop the competences required to manage such work groups.

Technological innovation is transforming the nature of work. The IT revolution and especially the integration of ICT will have a major impact on the future environment in which managers work, and in the next decade new technologies are expected to permeate almost every business practice.

Managers' concerns over the new technologies involve changes both inside and outside the boundary of the organisation. One of the results of the ICT revolution on the organisation will be that the new communication flows will be horizontal rather than vertical, which will undermine the traditional role of management. Globalisation and specialisation demand co-operation and communication between enterprises and the effective use of ICT will reduce spatial boundaries and the problems of trans-national operation.

Knowledge organisation is assuming increasing importance and in the new global competitive landscape of the next century, firms will compete primarily on the basis of knowledge and intellectual capital.

Sustained competitive advantage is increasingly seen as deriving from a firm's internal resources if these can add value; are unique or rare; and non-substitutable. The key management challenge of the 21st Century will be harnessing the productivity of the knowledge worker; 'leveraging knowledge' will become the primary source of competitive advantage, essentially maximising the return on core competence.

The Competences and Competencies of Managers

The implications of the above changes for the future skill needs of managers were assessed against the set of competences and competencies in the Cheetham and Chivers model outlined in the theoretical section. The results are discussed in relation to the five categories: knowledge/cognitive competence; functional/ occupational competences; personal competency; values/ethical competency; and meta-competencies.

Knowledge or cognitive competence will become increasingly important, as managers will need 'a knowledge-based technical speciality' in addition to more generic management competences. For example, globalisation is making new demands for strategic leadership and will require managers to be able to see and act beyond local boundaries. In addition to the need for greater international awareness, UK managers will especially need to develop a European perspective, including knowledge of other languages and cultures.

Functional competences will continue to underpin management performance. To exercise strategic control, top managers must be able to acquire deep understanding of the competitive conditions and dynamics of each of the units for which they are responsible. Changes in the external environment and inside organisations will require managers to adopt a group-oriented view of leadership. To manage employee empowerment, managers need to reject the transactional type of leadership in favour of a transforming leadership style that satisfies the higher needs in people. The increasing number of SMEs in the UK has important implications for the skills required by SME owner/managers as well as for managers in large enterprises who are increasingly interacting with SMEs.

Personal competencies that managers need will evolve as work organisation becomes increasingly focused on team-working and self-directed teams, where facilitation skills are of paramount importance. In the future there will be a far greater diversity of organisational types, and a more complex variety of roles within them. Network organisations rely on partner relationships, which requires new competencies of managers in developing and maintaining collaboration. To function in a more fluid work environment, managers will need competencies such as self-reliance, responsibility, self-monitoring, the ability to learn from experience and a desire to learn new skills. Managers must be able to identify opportunities and to become leaders who inspire, energise and polarise individuals and teams in line with an organisational vision.

Ethical competencies are becoming increasingly important because the 'new social contract', the end of loyalty and commitment between the organisation and employee, means that managers must establish trust in the employment relationship. Greater cultural awareness and sensitivity, and not simply knowledge of other cultures, will be essential for managers to communicate effectively. Managers will need the competencies to deal honestly with all stakeholders and to face the ethical and moral issues of the next century. For example, managers will need to develop more convincing policies for sustainable development. Moreover, in place of the old leadership style, leaders must develop more subtle and indirect forms of influence to be effective.

Meta-competencies may ultimately prove to be the key differentiators between adequacy and excellence in management performance. The rapid rate of organisational change means that the essential management skills for the future are learning, innovation, managing change and flexibility. Managers will need to be comfortable with paradox, with uncertainty and with contradiction in the world around them in order to develop flexible responses to the changing external environment. The major challenges for managers will not be technical or rational in nature and will depend on instinct and judgement. The competencies that managers will need in order to cope with and implement change centre on learning, since sustainable competitive advantage derives from the ability to adapt and learn faster than the competition.

Conclusions and Recommendations

The key purpose of the study was to make policy recommendations for improving the provision of management development in the UK to deliver the skills that mangers will need in the future. Given the time and resource limitations of the study, it is important to test the validity and reliability of the findings so recommendations were also made for further research. Each is outlined below.

Policy Recommendations

Ten specific policy recommendations were made to the DfEE:

- A cross-departmental statement of management development policy and priorities, including a Charter of Opportunity that describes what training and development managers should expect from companies.
- Encourage the commitment of significantly more time to management development: in the short term seek to establish a norm of 10 days per year, rather than 2 or 3 days.
- Within the next decade, government should seek to encourage acceptance that 20 per cent of working time (one day per week) should be spent on management development activities.
- Communicate the message that it is a personal responsibility for the individual to take charge of their own development and encourage companies to implement their own CPD systems.
- Explore the scope for Learning and Skills Councils to act as vehicles to articulate management development needs, interface with the training and education markets and disseminate good practice messages, particularly to small businesses.
- Encourage greater targeting of SMEs, especially at the low-skill end of this sector, with greater emphasis on experiential learning.
- Encourage recognition amongst providers of the need to incorporate different modes of learning beyond achieving qualifications, particularly experiential learning.
- Encourage greater focus on people management skills.
- Encourage the development of activities that focus on the development of vision and help firms to implement the necessary change.
- Encourage greater focus on managing change and increasing enterprise.

Recommendations for Further Research

The FSNM project provided an overview of the main influences that will affect the role of managers in the future, and demonstrated the value of such broad scenario analyses for predicting future skill needs. Given the scope of the enquiry and the time available, it was of necessity tentative and exploratory in nature. Further research, employing a variety of different methodologies, is needed to examine the validity and reliability of the findings and to update the analysis. In particular, three specific approaches were recommended.

Discussion Forum. The consultation exercise proved invaluable as a validation technique, exposing the findings from the literature review to a range of experts in the UK, USA and France. The exercise could be more fruitful if organised as a discussion forum at the AHRD, with a group of experts having the opportunity of interacting together, rather than responding to a consultation schedule.

Case Studies of the Future Management Role. It is evident that there are a few leading-edge organisations in the world where managers are already experiencing much of the altered work role predicted for the future. A series of in-depth case studies exploring how managers work in such organisations, the competences and competencies they need, and how these are acquired, would make it possible to consider the future skill needs of managers in context. We are proposing to coordinate such a study from Toulouse.

Benchmarking Study of Business Schools. Academic provision of management education in the UK has been criticised on a number of grounds, especially in relation to its low volume by international comparisons. A benchmarking study would provide an opportunity for systematic evaluation of the quality and volume of UK management education against international standards.

Contribution to New Knowledge in HRD

The FSNM study has broadly made two contributions to new knowledge in HRD: first in relation to the theoretical framework of management competence and competency and second in relation to forecasting future skill requirements and HRD needs. Each is briefly discussed below.

Theoretical Framework of Competence and Competency

Developing a clearer theoretical framework within which to structure discussion of management skills is important because of the abundant terminological inconsistency and conceptual confusion in the literature addressing management competence and competency. The issue needs to be taken up further within the AHRD because US and European usage of the terms differs significantly.

The AACSB promoted the competency approach in US Business Schools (Albanese 1989), whereas, as the Cannon Report noted (IoM 1994: 48, 51) MCI has had less influence on UK Business Schools. Academics resist a competence-based approach because it lacks sufficient theoretical underpinning, but also because they seldom have significant experience to demonstrate their own competence in a practical setting (Brown 1993: 31). Academic provision of business education needs to become more closely aligned with the competence-based approach in order to maximise the synergy between formal education and experiential learning and clarifying the different contributions to the development of holistic professional competence.

The framework employed in the FSNM project has already proved useful in two specific contexts. First, it has been used to analyse management development needs in Scottish visitor attractions, as described by McCracken and Watson in another paper at the AHRD. Second, it is being used to analyse cultural differences in the competencies of project managers working for Airbus in Toulouse.

Forecasting Future Skill Needs

Predicting future skill and development needs from changes in the external and internal environment is of wider significance for advancing theory in HRD and for improving HRD practice. The pace of change makes linking management development with organisational strategy both more necessary and more problematic. By focusing on the trajectories of change and assessing their implications for the competences and competencies that managers will need, there is scope for anticipating management development needs.

The rapidity and discontinuous nature of the changes noted above inevitably poses a challenge to forecasting, but makes it more valuable in averting unnecessary or irrelevant management development. As the pace of change increases, skills foresighting must become a regular part of the design of HRD in general and not confined to management development. There is an important role for the AHRD in providing the research underpinning the advancement of theory to give a lead to HRD professionals in becoming more focused on the future.

The methods developed in the FSNM project for forecasting future skill needs have been applied in two other projects. The first was concerned with implementing the Management Standards in the Inland Revenue, where the competences and competencies needed for the future were identified from strategic changes. The second project involves undertaking a *Skills Foresight* for the UK clothing sector, in which the drivers of change identified from a similar analysis are interpreted with the help of focus groups of employers.

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Simulation Enhanced Learning: Case Studies in Leadership Development

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While HRD practitioners strive to use more active learning strategies, the standard approach for developing strategic leadership competencies has largely remained the domain of traditional lecture driven events. This paper presents an alternative, Simulation-Enhanced Learning, that combines assessment, role-plays, mini-lectures, and simulations to provide an integrated leadership development approach that replicates the dynamics of the organization and meets the necessary conditions for development. The creation and application of SEL in two business organizations is described.

Keywords: Leadership Development, Simulation, Competency

The greatest constraint for many organizations is the ability to attract, retain, engage, and develop talent (Chambers, Foulon, Handfield-Jones, Hankin, and Michaels, 1998). At the same time, the practical impact of near continuous change and complexity has meant that people in organizations must constantly learn and adapt. To survive in the turbulence that accompanies rapid change, organizations, their workforces, and their leaders must develop the capacity to learn continuously (Watkins & Marsick, 1993). In this context, the only effective development efforts are ones that increase participants' ability to act successfully in unique, ambiguous or divergent situations (Argyris & Schon, 1996). Yet, many organizations are finding it increasingly difficult to produce the necessary meaningful learning using traditional training methods. In order for development to make a consistent contribution in organizations, a real break from the school-based educational philosophy of "learning through listening" must take place to be replaced by a recognition of the active, self-regulated nature of meaningful learning (Shuell, T. J. 1990).

The world is complex, the development of leadership talent is complex and we are not treating it as such when we approach it with educational methods that assume that a given set of skills are requisite and unchanging. Learning to lead involves dealing with complexity, taking risks, and collaborating with others to bring a myriad of talents to bear on critical issues (Dentico, 1998). The catalyst for development must be the leader and his or her ability to profit from experience (McCall, Lombardo, Morrison, 1989). So, what is the role of the organization in orchestrating development? The role may be to enhance diverse opportunities for individuals to garner meaningful learning from experience, on the job, in the day to day challenges of work and in planned learning activities.

Transfer of Learning and Simulation

Research tells us that learning activities that recreate work situations foster better transfer of learning (Swanson & Holton, 1999). Industry examples of the use of simulations are plentiful. Aviation, civil emergency preparedness, business management, and medicine all use realistic scenarios to teach or improve complex skills. When the cost of failure is high and when the performance arena uncertain, simulations are likely to be useful. It thus seems logical that one thing organizations can do to increase learning transfer and performance in the face of ambiguity is to employ educational interventions that are more like the learner's on-the-job experience—simulations.

Educational simulations are simplified versions of the reality that learners interact with on a daily basis. They capture the essential dynamics of a workplace in a way that allows learners to explore different approaches and experience different outcomes. Simulations have long been used by social scientists to study social phenomena (Goldspink, 2000). Recent trends have been toward the use of complex computer-based simulations created to model workplace dynamics and teach leaders how organizations work. However, regardless of advances in computational technology and application of sophisticated artificial intelligence software, computer based simulations are limited to simplified systems that can only marginally represent reality. "What is distinctive about

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human social systems is that they are comprised of agents (humans) who have the capacity for language and who are reflexive or self-aware. Computer aided simulation design has yet to come to terms with this complexity theoretically or methodologically" (Goldspink, 2000). Human interaction is the true field test and development arena for leadership talent. The focus of this paper will be on the dynamic of learning created in social simulations featuring human actors.

Necessary Conditions for Development

Personnel Decisions International (PDI) research on organizational environments that foster development identified five basic conditions that must be present for development to occur. These are called the "Necessary Conditions for Development" by the authors of the PDI study (Peterson & Hicks, 1999). According to Peterson and Hicks, there are five essential conditions necessary for systemic and strategic development of both people and organizations. Those conditions include insight into development needs, motivation to change, opportunity to acquire and practice new skills and accountability for follow through (see Table 1). A deficit in any of these conditions limits the ability of the individual or organization to develop. These conditions served as requirements for development programs created at PDI during the period of time this study was conducted.

Necessary Conditions for Development
1. **Insight.** Do people know what to develop?
2. **Motivation:** Are people willing to invest the time and energy it takes to develop themselves?
3. **Capability:** Do people know how to acquire the new capabilities they need?
4. **Real World Practice:** Do people have opportunities to try their new skills at work?
5. **Accountability:** Do people internalize their new capabilities to actually improve performance and results?

Table 1. Necessary Conditions for Development. (Peterson & Hicks, 1999).

Statement of the Problem

The standard approach for developing leadership capabilities in organizations has been to identify needed leadership competencies or skills and then to provide learners with awareness and skill building activities to prompt a change in behavior around those separate competencies (Dubois, 1993). Management education as a practice has also focused attention on the need to use active, experiential learning techniques (Zemke & Zemke, 1984). Typically, these activities occur mostly in classroom settings. This model of leadership education was developed and perfected in a stable and more predictable age (Lynham 1999; McLagan & Nel, 1996) and is proving to be less than adequate in an age of what Peter Vaill calls "white-water change" (1989). To live up to its potential to become a truly strategic tool (Conger & Xin, 2000) a new model of leadership education must be formulated.

The issues that the authors identified when they were exploring this problem within their client organizations revolved around the following questions:

1. Would the use of simulations be an effective way to enhance traditional classroom-based leadership development programs?
2. How could simulations feasibly portray the complexity of strategic business issues in ways that are engaging and effective for the learners?
3. How could such simulations be developed and integrated into classroom-based leadership development programs in such a way as to meet the practical needs of training designers, facilitators, learners and program sponsors?

This paper describes the authors' exploration of these questions in the development and implementation of two unique leadership development programs featuring a strategy named Simulation-Enhanced Learning (SEL).

Method

The approach used by the authors in developing a simulation-enhanced learning (SEL) strategy followed a simple action research perspective (Argyris & Schon, 1996). As such, the principal purpose of the activity was to help the client individuals and organizations reach their learning goals. The study itself was secondary to this primary goal, but planned from the outset as a method of enhancing the authors' understanding of how simulations could enhance leadership development interventions. The process of intervening, reflecting on the intervention, and reflecting upon the reflection process contributed to the learning the researchers gained.

As practitioner inquirers, the authors understood that they were not objective, but rather biased participants in the formulation of theories of action (Argyris & Schon, 1996). Also, because this was an exploratory study conducted as part of a learning intervention, the researchers decided to document the results of their experiences as cases (Yin, 1994.)

With this understanding in mind, the goals of the reflection were to attempt to identify where the intended actions had seemed to produce a pattern of desirable results, and where surprises occurred. In addition, reflection upon the process of reflection itself surfaced possible biases. Among these was the likelihood that the researchers tended to pursue and justify the use of simulations because of personal motives (as noted, creation of new processes, application of creativity, desire to do something new, desire to enhance credibility). The authors acknowledge that this bias affected the selection of methods, application of the SEL approach, and description of the results. However, this bias should be recognized as appropriate to the simplified action research method as the researchers were simultaneously participants and researchers (Herron, 1996).

The researchers were consultants external to the client organizations in both cases. They had been contracted to provide customized leadership training that would help each organization address its unique strategic situations and leadership development skill gaps. During the training design and development process, the researchers were able to involve program sponsors in the action-reflection process around the use of simulations within their respective leadership development programs.

Designers and sponsors of these leadership development programs were initially interested in addressing the needs of leaders within two organizations who were facing increasing complexity with apparently insufficient skill. As the intervention designs progressed, each client indicated a receptivity to using simulations to enhance the learning experiences. At that point, the researchers concluded that a sound approach to developing and using simulations for leadership development might be a useful tool. The examination of the SEL approach and the development of the process model underlying these interventions became part of the authors' goals for the experience. The researchers and participating organizational sponsors considered collecting empirical evaluation data about the relative effectiveness of the SEL approach, but elected not to pursue this for varying reasons. However, as an exploration of the Simulation-Enhanced Learning approach itself, the authors report two case examples that demonstrate its application.

Case: Developing an Approach to Simulation-Enhanced Learning

"Executive education is undergoing a gradual but radical transformation. Programs operating today must be far more innovative, learner-centered, and relevant to immediate company needs than ever before" (Conger & Xin, 2000). This was certainly the standard called for by Rockwell Automation and Anheuser Busch, two organizations with strong traditions in the area of innovative leadership development. In late 1998, each organization set out to create new leadership development programs in partnership with Personnel Decisions International, an international human resources consulting firm. In these two separate projects, the similar goal was to craft leadership development experiences that were directly linked to organizational challenges and strategic business initiatives. The result was a design methodology and learning technique labeled Simulation-Enhanced Learning (SEL). Simulation-Enhanced Learning programs are an integrated blend of assessment, coaching, focused lecture presentations, case-study discussions, experiential activities, action learning, and large-scale business simulations. As the approach to designing both leadership development programs was generated at the same time, and in collaboration, this is documented first. The specific application to the two organizations' unique needs follows.

At the outset, the development teams recognized three challenges. These challenges rose from the needs expressed by the program sponsors and the Personnel Decisions International (PDI) training and development standards. Each leadership development program designed through this process needed to:

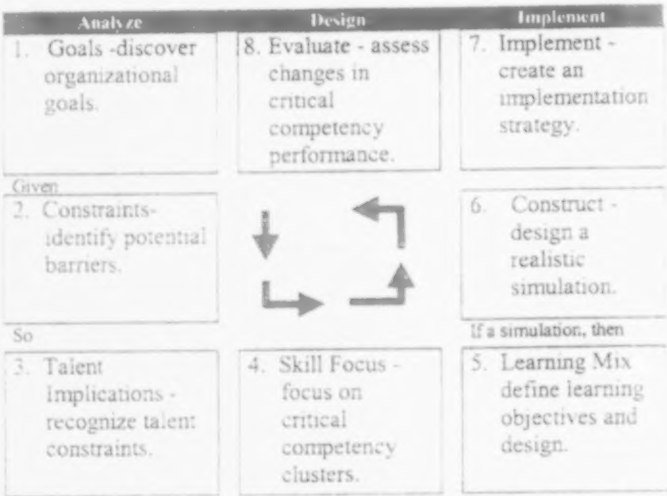
1. Present learners with business challenges to build strategic competencies. Learners must be able to apply the skills effectively in their own workplaces.
2. Use learning strategies in such a way as to satisfy the "Necessary Conditions for Development," a research-based PDI model for development.
3. Increase the transfer of learning by employing methods that help participants "learn by doing."

Using a common approach to meeting these objectives seemed to offer the most efficient use of consulting time for both client organizations and the researchers. This prompted the researchers to pool efforts to develop an intervention approach that would address the objectives.

The decision to pursue simulation as a learning strategy came about as the researchers were asked to address a variety of needs in each organization that cut across simple and straightforward competency lines. As Peter Vaill (1989) had observed, the reduction of leadership to competencies was useful in identifying the skills to address, but not for crafting naturalistic development experiences to strengthen leadership ability. The long history of work that PDI had done in using simulations for management assessment centers suggested that competencies could be observed and practiced in pseudo-realistic ways for individuals. One researcher's experience with military and gaming simulations suggested that simulation could be useful for integrating competency-based learning in a group setting, as well.

As the researchers explored the concept of using simulations with the client organizations, the reaction of the sponsoring teams was very positive. They particularly appreciated the way that the simulation would bring their specific business challenges and conditions into the development program. Discussions of the learning strategy also highlighted the ways in which the simulation-enhanced program would address the "learning by doing" and "present business challenges" objectives, and provide firm support for the necessary conditions for development. The only serious question from both client organizations was whether the researchers would be able to deliver on the timeline and budget initially specified for the interventions. After these questions were addressed and the scope of the simulation and the rest of the program negotiated, both Anheuser Busch and Rockwell Automation decided to proceed with the Simulation-Enhanced Learning approach.

Challenge 1: Present Learners With Business Challenges To Build Strategic Competencies


Analyze
Design
Implement
1. Goals -discover organizational goals.
8. Evaluate - assess changes in critical competency performance.
7. Implement - create an implementation strategy.
Given
2. Constraints- identify potential barriers.
6. Construct - design a realistic simulation.
So
If a simulation, then
3. Talent Implications - recognize talent constraints.
4. Skill Focus - focus on critical competency clusters.
5. Learning Mix define learning objectives and design.
Figure 1 : Design process for Simulation-Enhanced Learning

Each team followed a slightly modified version of the traditional instructional design process as described in Figure 1. Designers began by analyzing organizational goals and constraints (steps 1&2). The analysis yielded information that allowed the design teams to identify the implications for talent and begin constructing realistic business challenges.

The design teams were assisted in identifying talent constraints by the availability of custom competency models and job analyses. While the competency models provided a useful starting place, they were also somewhat limiting. In practice, competency models are frequently used in selection, assessment and performance measurement. Translating those competencies into meaningful objectives for leadership development however, has been challenging and often not very successful. One reason for this was described by Peter Vaill as, "Competency lists cannot describe how people experience their work life." Therefore, competency models sometimes remain an interesting exercise in categorization and do not become critical drivers of individual leadership development. So, if competency models don't drive development then what does? According to Peterson & Hicks (1999) development occurs when the necessary conditions for development are met.

When experience drives insight, motivation and learning, accountability, competencies can then become touchstones for progress. If the programs the researchers were designing was to present learners with realistic business challenges, then the competency focus and learning content needed to be similarly realistic and relevant. Through the situation analysis, the researchers found that business challenges required leaders to employ a number of competencies simultaneously. The question then became, "What cluster of competencies should be the focus for this program?" (Step 3& 4). The focus of needs assessment shifted accordingly.

Challenge 2: Satisfy the Necessary Conditions for Development

With the skill focus and competency clusters identified, the design teams began to craft the learning mix (step 5 & 6). The challenge for each team was to create a program that satisfied the necessary conditions for development. In practice, the conditions became a "blueprint" for design. In order to satisfy the necessary conditions for development, the researchers planned to integrate a variety of activities into the framework that would provide the basic structure within which the learners could work. Examples of learning strategies employed in SEL are shown in Table 2.

Challenge 3: Learn by Doing

As the design outline took shape the emphasis was on employing methods that helped participants to "learn by doing." The plan called for participants to experience the program in cohort groups immersed in an integrated, large-scale business simulation. In the process, each group would be faced with challenges and opportunities analogous to the types of challenges encountered by leaders at their level back on the job (step 6). The business issues used were modeled after the situations identified in the analysis phase (see the information flow from step 2). For example, in one simulation, the group was asked to recommend a revised marketing strategy in response to new competitor and customer information. In another instance that same group was required to negotiate for capital investment resources. Each group was paired with a trained facilitator. The facilitator's role was to observe helping and hindering behavior and facilitate critical reflection discussion in the after action group debrief sessions.

Condition	Strategies Used in the SEL Approach
Insight	360-degree feedback assessment, peer-to-peer feedback, self-assessment.
Motivation	Debrief of 360-degree feedback, linking of simulation to real business issues, learner identification of benefits to be gained from the program, pre- and post-program boss discussion, linking to personal career issues for the learners.
Capability	Lecturette, experiential exercise, case study discussion, introduction of business simulation material, learner-led debrief of simulation modules, facilitator coaching.
Practice	Take-home applications, business simulation work, and some action learning components.
Accountability	Pre- and post-program boss discussion, responding to 360-degree feedback givers, organizational expectation for results, some action learning components.

Table 2. SEL Learning Strategies.

The expectation was that these cohort groups would sponsor and enrich the learning process through peer feedback and collective wisdom. Calhoun W. Wick and Lu Stanton Leon (1993) emphasized the value of cohort groups in The Learning Edge. "Leaders who are successful learners are powerboat drivers pulling a team of water skiers. By converting their energy into action, those in their wake are pulled to explore new territory, to see their work in new ways, and to get increased results they never thought possible." In bringing together leaders from diverse functions and divisions within the organization to participate in these cohort learning groups, the expectation was for participants to learn from each other as well as from the simulation experience.

Case: Deployment of SEL at Rockwell Automation

In 1998, Rockwell Automation was in the early stages of an organizational culture change. The company had reorganized several parts of its industrial controls business to create a more efficient and responsive business structure. The goal of the restructuring was an improvement in Rockwell Automation's competitive capability. As frequently happens in restructuring efforts, the structural changes occurred in advance of work on the underlying organizational culture. The previous structure had allowed the five business units a lot of autonomy, but the new organization would require a greater degree of cooperation and collaboration across the whole organization. Rockwell Automation's executive leadership felt that the legacy culture was a constraint on the ability of the restructured organization to deliver on its promised potential.

One implication of the talent need was that leaders at all levels of the organization needed to be better equipped to support the intended culture. They also needed the opportunity to develop increased leadership skills to more effectively support their employees through the change process and on a day-to-day basis. As part of the effort to provide these skills, Rockwell Automation sponsored a leadership development program to give all supervisors, managers, and directors a common set of skills, tools, and expectations. By building individual capability and creating a shared experience for leaders, Rockwell Automation hoped to gain both direct performance improvement and a foundation for a more flexible culture.

The HRD team that developed the leadership development solution began with a thorough assessment of the strategic, operational, and leadership needs of the organization. The assessment methods included leader interviews, supervisor focus groups, review of multirater feedback data group reports, and analysis of strategic direction. The assessment revealed a broad set of leadership skills that were important to the job and to the new strategic direction, and which leaders felt needed development. By analyzing the needs in terms of importance and potential impact on leader effectiveness, business unit performance, and strength of support for the desired cultural practices, the HRD team was able to establish a reasonable focus on a set of key talent needs.

The design itself included two sessions of five days each. The first session introduced a common set of management skills grouped into five areas: managing people, managing performance, selection interviewing, coaching people, and managing diversity. This session was presented as a classroom training program, including lecture, discussion, case study, role plays, learning applications, development planning, and a two hour interviewing simulation. The design team considered using simulation here, but decided to limit the simulation experience to the second session, due to resource constraints.

Between four and six weeks later, the same group of participants returned for the second session. This session focused on leadership skills (influence, decision making, fostering innovation, strategic thinking, team building) in a leadership laboratory environment. The session was designed around a comprehensive business simulation called "RoboPet," developed by PDI for this program. The fictional company called "RoboPet, Inc." was a manufacturer of high-technology toys. It faced an unforeseen challenge from a new competitor and had a limited time to respond. The learners took on the roles of cross-functional product line teams to address the market challenge of the competitor's product. The HRD team developed the materials with the goal of information richness and detail. Each participant received different information that pertained to his or her role and product line.

In the implementation phase, the facilitators ran the program as five related and sequential simulation modules. Each module furthered a storyline developed to match the scenario and the leadership skills the program would emphasize. Each simulation module followed a similar pattern: 1) introduce new information, 2) respond to the information, 3) analyze and solve problems, 4) apply the leadership skills, and 5) debrief the results of the learners' actions. The actions that the learners could take within their roles were bounded only by the resources given to them in the scenario and by the guidance of the facilitators. After each simulation module, the learners discussed their own lessons learned and shared insights about their actions, with the facilitator asking open-ended questions to prompt critical thinking. The facilitators' role in guiding this loosely structured simulation was key to its success, and required significant preparation and familiarization time.

The HRD team built the scenario for the RoboPet simulation around business situations that posed challenges for the Rockwell Automation leaders. These situations included: dealing with information overload, responding rapidly to competition, fostering innovation in teams, influencing other teams and upper management, making tough decisions independently, and creating a shared sense of purpose. The design team matched the simulation scenario and situations to what the leaders frequently experienced on the job. At the same time, the scenario was crafted so that participants could not use so much industry knowledge that the focus on leadership skills would be lost. As a result, many participants in the program commented to the facilitators about "Wow! This feels just like what I do at work!" This illusion of realism helped the participants transfer what they learned back to the job, according to later comments and evaluation interviews with program sponsors.

Case: Deployment of SEL at Anheuser Busch

The Anheuser Busch Leadership College was created in 1997 to promote learning and development across the numerous organizations that make up the Anheuser Busch Companies. In late 1998, the organization was seeking top line growth, control of the bottom line and leadership consistency across the company. In order to support these goals, managers in the organization needed to improve their ability to implement Anheuser Busch strategy and build strong relationships. A leadership program geared for the middle management population was already in place. While the existing program was generally well received, it lacked a tight focus on these and other critical competencies. A new approach was called for and the SEL design project was initiated. The HRD team included Anheuser Busch Process and Human Resource leaders and a PDI design consultant.

As in the Rockwell Automation design process, the Anheuser Busch (AB) team began with a thorough assessment of the strategic, operational, and leadership needs of the organization. The assessment methods included leader interviews, review of multirater feedback group reports, and analysis of strategic direction. Anheuser Busch is a market leading organization, very stable, it has a strong track record of success. One question asked was, "How could leader development contribute to an already successful formula?" The picture that emerged from the interviews and analysis showed some opportunities in the area of strategic thinking, cross-process influence skills, innovation management and employee development. As in many large and complex organizations, managers at

Anheuser Busch tended to have a very narrow focus on their own process and little on the bigger picture. In the bigger picture, AB was facing increasingly innovative competition, flat international sales and rising costs.

In the design of the Anheuser Busch Leader Lab, groups of leaders from across the organization, including some from brewing, bottling, and entertainment were brought together. In future programs managers from supply organizations would also be invited. Over the course of three days participants in the program assumed the leadership of a consumer products and services organization called Broucharde Companies, International. The Broucharde Companies was a multinational organization comprised of three enterprises, Broucharde Wines, Undine Hotels and Dawntide Cruiselines (BUD). Like Anheuser Busch, the Broucharde Companies was a privately held firm led by the grandson of the founder. All the issues and opportunities embedded in the scenario and simulation had their analog in Anheuser Busch.

The program implementation followed a similar scheme as identified in the Rockwell case. Each participant was asked to engage in a 360 assessment and goal setting process prior to the program. Once at the program, participants gathered together in learning teams. Each team was paired with a facilitator. In the Anheuser Busch program, there were five sequential modules. Each module addressed a specific competency cluster and the simulation story line was continued in each module. The participants engaged with the simulation, debriefed the activity, reflected individually, and then moved to the next simulation module to highlight another competency cluster.

It has now been a year and a half since the first delivery of the program. Since that initial delivery this program has become one of the more popular workshops offered through the Anheuser Busch Leadership College. In late 2000 the program was offered for the first time outside of the United States to managers in England. In post program reaction evaluations, participants are asked to list the most valuable aspect of the program. Many participants identify the simulation experience as being most valuable. Others cite the value of the 360 feedback. However the number one response by far is the impact of peer and coach interaction in critical reflection or real business case discussions held within their learning teams.

Conclusions

Through the experience of developing and testing the Simulation-Enhanced Learning methodology in two organizations, we were able to address our initial research questions. As expected, new questions and directions for further study arose, as well.

Research Question Conclusions

In the process of creating the Simulation-Enhanced Learning methodology and the two programs described in this paper the authors addressed three questions. First, we asked: *"Would the use of simulations be an effective way to enhance traditional classroom-based leadership development programs?"* We found this to be the case, at least as measured by participant response. The participant response ratings and comments indicated that the simulation-enhanced programs led to more insight, as perceived by the learners. Follow-up questions about utility also indicated that participants and supervisors were more likely to have used what they learned in this program than in other leadership development programs they had taken. However, this data is entirely based upon perception and anecdote. As yet, no rigorous evaluation has been done on either of the SEL programs. Addressing the necessary conditions for development, including use of feedback, multirater instruments, and engaging practice in a simulation, made the entire learning experience effective for the participants. Programs without some simulation component have not been able to achieve such high levels of engaging practice.

Second, we asked: *"How could simulations feasibly portray the complexity of strategic business issues in ways that are engaging and effective for the learners?"* We found that, as expected, the process of creating simulations is complex. It requires a deep understanding of the social system being modeled, the ability to diagnose the system issues underlying the day-to-day challenges, and the ability to portray those system issues through the simulation storyline. We found if we created a well-written story and supported it with reasonable data then people quickly became engaged and enthusiastic about their participation in the simulation. As with any fictional work, enough supporting information must go into a simulation scenario to allow the participants to suspend disbelief. Without details that make the simulation "feel" like real work, participants do not immerse themselves in the experience and construct new insights and learning.

The third question was: *"How could such simulations be developed and integrated into classroom-based leadership development programs in such a way as to meet the practical needs of training designers, facilitators, learners, and program sponsors?"* The key to answering this question was the integration of the necessary conditions for development into the SEL methodology. One of the lasting outcomes from these projects was a repeatable methodology for creating and implementing Simulation-Enhanced Learning programs. Using the SEL approach, shown in Figure 1, we were able to identify the system issues and constraints, group competencies into related clusters, and design programs that included a variety of learning strategies, supported by business simulations. The SEL approach helped us balance the very real constraints of time, money, and effectiveness as we made decisions about how much detail to put into the simulations, how to structure learning around the competency clusters, and what learning activities to emphasize or limit.

Other Questions and Directions

There are other questions about the use of simulations for leadership development that remain unanswered. This study did not examine how learners used their learning groups to enhance the quality of their learning. Continuing work beyond the simulation and into real business issues could be a very powerful action learning extension to the SEL approach. Another unresolved question is whether or not the SEL approach is more effective, empirically, than its traditional alternatives. One additional possibility raised during the design phase of these projects was whether participants could engage in e-learning with online versions of the simulation in lieu of or in preparation for the learning event. Each of these issues offers the potential for further study.

Returning to our original premise, leadership development in the face of increasing complexity must incorporate more effective and engaging learning methods. Using simulations to put boundaries around the complexity and, in essence, "package it" for learning has shown to be a useful tool. Within the simulation itself, the learner has much greater control of his or her learning than is possible in most traditional learning activities. Adult learning theory continues to suggest that this learner control and engagement is key to the construction of knowledge and to making intentional changes in behavior.

As we find new ways to help people develop the knowledge and skills they need to adapt to complexity, simulations are likely to play an increasingly important role. Simulation-Enhanced Learning is one way to bring the context into the classroom to build strategic leadership capabilities.

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The Theory Challenge Facing Human Resource Development Profession

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A theory simply explains what a phenomenon is and how it works" (Torraco, 1997). The HRD profession needs to continue to develop its core theories and to understand that theory building is a scholarly process. This paper presents three arguments: (1) that the demand for HRD theory is increasing, (2) that the present available HRD theory has taken us about as far as we can go, and (3) that what we do is too important to wallow in atheoretical explanations.

Keywords: Theory, HRD Theory, Research in HRD

"There is nothing so practical as good theory."–Kurt Lewin

Kurt Lewin, the famous early organization development innovator and scholar, presented a profound explanation of theory apart from popular perceptions. He noted that there is nothing so practical as good theory. This is in contrast to commonly held thoughts of theory being "half-baked" ideas disconnected from the "real world." A good theory is something that is thorough and that has been tested both intellectually and in practice. Lewin helps us from misusing the word "theory."

Importance of Theory

The HRD profession needs to continue to develop its core theories and to understand that theory building is a scholarly process. Here are a few organizing thoughts about theory. These ideas are important to highlight because there are those in HRD that do not believe that having HRD theory or clearly specifying the underlying theory of HRD is essential to the profession (McLean, 1998). An interpretation of this minimal view of theory is that the profession needs to have an ethical intent and to situationally draw upon as many theories as required in pursuit of its work. Theory is particularly important to a discipline that is emerging and growing. Sound theory is not pontificating or forcefully marketing the latest fad. Rhetoric that negates theory, or the promotion of the idea that theory is disconnected from practice, is an artifact of non-theoretical thinking. Rather, theory in an applied field such as HRD, is required to be both scholarly in itself and validated in practice, and can be the basis of significant advances.

Definition of Theory

The following two definitions of theory from HRD scholars capture the essence of theory and the theory challenge facing our profession:

- "A theory simply explains what a phenomenon is and how it works." (Torraco, 1997, p. 115). Torraco's definition poses the following question: What is HRD and how does it work?
- "Theory building is the process or recurring cycle by which coherent descriptions, explanations, and representations of observed or experienced phenomena are generated, verified, and refined."(Lynham, 2000). Lynham's definition poses the following question: What commitments must individuals, the HRD profession, and its infrastructure make in order to establish and sustain theory building research in the HRD profession?

Theory Building Research

The arena of theory building research can be thought of as a never-ending journey for any discipline. Yet, it is reasonable to assume that there are points in the maturation of an field of study that press theory building research to the forefront. I contend (1) that the demand for HRD theory is increasing, (2) that our present available theory has taken us about as far as we can go, and (3) that what we do is too important to wallow in atheoretical explanations.

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Recognizing the Theory Building Journey as Scholarship

When a scholar takes a serious look at the theory building research journey, it is quite intricate. This journey it is overviewed in a recent article titled "Theory Building in the HRD Profession" (Lynham, 2000). Lyman's article is a useful starting point for those interested in HRD theory building discussions or actual theory building research.

Theory-practice publications such as "Workplace Learning: Debating the Five Critical Questions of Theory and Practice by Rowden (Ed.) (1996) and "Systems Theory Applied to Human Resource Development' by Gradous (Ed.) (1989) and have also provided excellent contributions to the theory in HRD. Gradous' (1989) classic monograph uses systems theory as a springboard for thinking about the theory of HRD and arguments for and against a unifying theory in HRD. The range of perspectives in the monograph call for focusing on system outputs (being results-driven versus activity-driven) (Dahl, 1989) to the consideration of the additional theories of field and intervention theory, theory of work design, critical theory, and human capital theory (Watkins, 1989). The idea of multiple theories that pay attention to people, organizational viability, along with a systematic and systemic understanding of the context emerged in this monograph. These ideas emerge in most theoretical debates about HRD.

Serious theory building methodologies (Reynolds,1971; Dubin, 1978; and Cohen, 1991) are challenging. Even the comparatively simple theory building tools and methods put forward represent significant effort to the theory builder (e.g. Patterson, 1983; Strauss & Corbin, 1998). The HRD profession must allow, respect, and encourage a full continuum of theory engagement. For example, seemingly elementary investigations into definitions and documenting the range of ideas within a realm of HRD are fundamentally important theory-building stepping stones. Examples include "Operational Definitions of Expertise and Competence" (Herling, 2000), "Commonly Held Theories of Human Resource Development" (Weinberger, 1990), and "An Overview of Organization Development Definitions" (Egan, 2000). On the philosophical side, an example of theory is "Core Beliefs Underlying the Profession of Human Resource Development" (Ruona, 1999), a study that investigates the thought and value systems that permeate the discipline of HRD. Other writings, such as "Philosophical Foundations of HRD Practice" edited by Ruona and Roth (2000) exposes core values in the field and "Theoretical Assumptions Underlying the Performance Paradigm of Human Resource Development" by Holton (in-press), pushes to articulate the underlying assumptions related to one of the major schools of thought in HRD. All add to our understanding of the HRD phenomenon.

Examples of straightforward theory building efforts on the part of HRD scholars include "Systems Theory Applied to Human Resource Development" (Jacobs, 1989), "Foundations of Performance Improvement and Implications for Practice (Swanson, 1999), "A Theory of Intellectual Capital" (Harris, 2000), "A Theory of Knowledge Management" (Torraco, 2000), and "A Theory of Responsible Leadership for Performance" (Lynham, 2000). Each one of these cited pieces deserves forums where there is opportunity for additional reflection in an effort to advance the profession. The behavior of the profession has been to largely overlook the substantive theory work done within the profession and to outside the profession for theories from related disciplines.

Requirements of a Sound Theory

Critics of HRD have chided the large number of HRD practitioners and commercial HRD products as being atheoretical (Micklethwait & Wooldridge, 1996; Holton, 1996; Swanson, 1996). Atheoretical means there is no thorough scholarly or scientific basis for the ideas and products being promoted. Organizations seeking quick or magical solutions are vulnerable to the exaggerated promises of suppliers. Patterson (1983) has provided a criteria for assessing the theory that undergirds sound practice. It is as follows: (1) Importance, (2) Preciseness and clarity, (3) Parsimony and simplicity, (4) Comprehensiveness, (5) Operationality, (6) Empirical validity or verifiability, (7) Fruitfulness, and (8) Practicality.

Reflective practitioners and scholars need to know about the completeness and integrity of ideas they are being asked to adopt. Certainly, there are always new ideas and those ideas generally deserve to be tried and tested. The ethical problem arises when unjustified claims are made in an attempt to market these ideas before they are fully developed and assessed. At minimum, the HRD profession should expect old and new ideas to be put to theoretical soundness tests such as Patterson's.

Theoretical Constraints Impacting HRD

There is tension in the academic world about the distinction between *disciplines* and *fields* of study. The academic debates around academic "turf" contain a number if issues. First, HRD is a relatively young academic field of study and is still maturing. Furthermore, the stage of maturation of HRD varies within nations and between nations.

Second, most academic fields of study are applied (e.g., medicine, engineering, education, business, and communication) and draw upon *multiple theories* in articulating their *disciplinary* base. Also, it is common for applied disciplines to create specializations that in time come to overshadow their hosts and to break away as independent disciplines. For example, university departments of adult education and vocational education have historically supported HRD in the United States. Many HRD programs have become larger than their adult education and vocational education academic university hosts in the last decade of the 1900s. Another point to recognize is that most disciplines are rooted in a set of theories and at times those theories are shared by other disciplines.

These academic issues confuse the HRD theory discussion. For example, there are HRD programs hosted in colleges of the arts, engineering, business, and education that draw upon some aspect of psychological theory. What slice of psychological theory and for what purpose is what ultimately defines the discipline. For example, HRD is believed to be committed to learning, helping people improve, and for organizations to improve their performance these considerations and this suggests focus in choosing and picking core psychological theories for the purpose of defining the theory of HRD. Thoughtfully identifying core component theories for the articulation of a particular discipline is essential for advancing its academic status. *Furthermore, the blending of the selected core theories for the purpose of the discipline provides the true distinguishing theoretical base of a discipline.*

Take two examples of theories often identified as foundational to HRD—systems and anthropological theories. Systems theory is not as value-laden as anthropology. Anthropologists are generally committed to not disturbing or changing the culture it studies. In contrast, systems theory almost always is thinking about understanding the system and the potential of improving it. Thus, it can be paradoxical to have HRD people espouse anthropological views with the intent to change the culture. This is a simple illustration of the missing logic that can occur when theory building is bypassed. Given the nature and purpose of HRD, easy arguments can be made that systems theory is core to HRD and anthropology is secondary. Anthropology will likely provide situational methods and tools to be called upon as needed while never being central to the theory and practice of HRD. A second example within HRD is to look closely at HRD professionals claiming a "whole systems view" (of the world, the organization, and the people in it) without them having the systems theory and tools to match those claims. It appears as though the following simpleton strategy is adequate for many of these practitioners in their belief that all the questions, data, and answers are within the affected people and that putting them into a guided group process is all that is required to be support sound HRD practice. Such a view would limit group interaction facilitation as "the" skill of the HRD professional.

Theory of HRD

Presently there is no universal view or agreement on the theory or multiple theories that support HRD as a discipline. Furthermore, there are limited theory alternatives being visibly proposed in the literature and being debated by the profession. On one hand some have called for systems theory to serve as a unifying theory for HRD to access all useful theories as required (Gradous, 1989; Jacobs, 1989) and on the other hand many have proposed sets of principles in the forms of comparative lists of added value, products, processes, and expertise (Brethower, 1995) or challenging the profession to the consider the additional theories of field and intervention theory, theory of work design, critical theory, and human capital theory (Watkins, 1989).

The alternative to having a sound theoretical and disciplinary base for the HRD profession is the present state of rudderless random activity aggressively sponsored by atheoretical professional associations and greedy consultants (Micklethwait & Wooldridge, 1996; Swanson, 1997). This condition celebrates short-term perceptions of success without having deep understanding or the ability to replicate results. The present dominant thinking in HRD to call upon the theories or theories required for each situation. This has taken the profession about as far as it can go. It regularly puts the decision-maker back on the ground floor with little opportunity for maturing theoretical discussions or advancement.

HRD is being asked to contribute more and to provide reliable results— HRD is being viewed as too important and to central to host organizations to tolerate atheoretical explanations of what it can do for its sponsors. For this reason, a discrete and logical set of theories as the foundation of HRD has been proposed. It is comprised of psychological theory, economic theory, and systems theory (Passmore, 1997; Swanson, 1995, 1999; Swanson & Holton, 2001). Economic theory is recognized as a primary along with its survival metrics at the organizational level; systems theory recognizes purpose, pieces, and relationships that can maximize or strangle systems and sub-systems; and psychological theory acknowledges human beings as brokers of productivity along with their cultural and behavioral nuances. It is believed that these three theories-- more than any others-- make up the theory of HRD, respond to the realities of practice, and that each is unique, robust, and complimentary to each other. Thus, the integration of the three theories is at the core of the discipline of HRD and ethics plays an important moderating role.

Conclusion

If theory just happened as a result of practice, the HRD theory bucket would be overflowing. On the average, HRD practice does not come close to what we know from sound theory. Systematically filling the HRD theory-practice void is fundamental to the maturation of the profession and it is the work of both practitioners and scholars. In conclusion, I contend (1) that the demand for HRD theory is increasing, (2) that our present available theory has taken us about as far as we can go, and (3) that what we do is too important to wallow in atheoretical explanations.

The purpose of this paper was to present a broad overview of the state of theory and theory building research in HRD. In doing so, it serves as a preamble for focusing on the theory challenges facing HRD. The following challenges have been selected for further exploration in the subsequent AHRD symposium:

- Metaphors for thinking About HRD Theory
- The Challenge of Conducting Theory Building Research
- International Challenge to HRD Theory
- The Theory Journal Challenge Facing HRD
- Issues and Actions Related to the Theory Challenge Facing HRD

Presenters/Panelists

Richard A. Swanson, University of Minnesota (session chair)
Elwood F. Holton , III. Louisiana State University
Susan L. Lynham, Texas A & M University
Wim Nijhof, University of Twente
Richard J. Torraco, University of Nebraska
Turnbull, Sharon, Lancaster University
Karen L. Watkins, University of Georgia

Session Description

The HRD profession is actively engaged in discussion focused on the nature of and role of theory in the profession. This session explores the theory challenge from five unique perspectives and allows participants to actively engage in analyzing the next steps in the theory challenge facing HRD.

Purpose

The purpose of this symposium is to advance the theory discussion in the HRD scholarly community and to focus on the specific theory challenges facing the profession.

Goals

The goal of this session is two-fold: (1) to expand the HRD theory interest group within AHRD and (2) to push the theory challenge facing HRD into an agenda for action. One formal paper is presented that culminates with the theory challenges addressed by symposium presenters.

Content

The Theory Challenge Facing HRD
  Richard A. Swanson, University of Minnesota
  "A scholarly perspective on the theory challenge facing HRD."
Metaphors for thinking About HRD Theory
  Karen L. Watkins, University of Georgia
  "Alternative metaphors for thinking about the theory challenge facing HRD."
The Challenge of Conducting Theory Building Research
  Susan L. Lynham, Louisiana State University
  "Theory building research methods for meeting the theory challenge facing HRD."
International Challenge to HRD Theory
  Wim Nijhof, University o Twente
  "International factors impacting the theory challenge facing HRD"

The Theory Journal Challenge Facing HRD
Elwood F. Holton , III. Louisiana State University
Richard J. Torraco, University of Nebraska
"A theory journal as a means of addressing the theory challenge facing HRD."
Issues and Actions Related to the Theory Challenge Facing HRD
Sharon Turnbull, Lancaster University
"Participant analysis of the next steps in the theory challenge facing HRD."

Format/Style

The format will include: (1) an overview of the innovative session paper (15 minutes), (2) four "perspective" presentations by a diverse group of leading scholars (15 minutes each; 1-page handouts for each), and (3) a facilitated group analysis of the theory challenge facing HRD with a summary of issues and actions (90+ minutes).

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Toward a Model of Technical Assistance for Small Manufacturers: The Role of Performance Technology

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The purpose of this review of the literature is to document the needs for technical assistance to small manufacturers especially as it relates to the deployment of new technology. This analysis draws the conclusion that the explicit use of the principles of performance technology would greatly enhance the identification of problems facing small manufacturers and set forth implementation strategies that provide solutions to these problems.

Keywords: Performance, Small Manufacturers, Modeling

This paper addresses a historical, systemic-oriented perspective on efforts to improve the competitiveness of small-sized manufacturing firms. While it is well-recognized that the growth of small firms is vital to economic growth in the United States and that some form of external technical assistance is needed to sustain this growth, only minor attention to models or theories of technical assistance have been investigated and validated. Small firms face many barriers to competitiveness that include a wide range of needs from lack of information, to inability to implement new technology, to scarcity of resources. Among these numerous challenges, the one offering the greatest opportunity for leverage and growth is the deployment of new technology, where new technology is broadly defined to not only include machines and software, but enlightened methods for management of the enterprise. The results of the review indicate that while technical assistance efforts remain uncoordinated generally, considerable evidence suggests that regional infrastructures are supporting the increase of such outreach efforts. An examination of the approaches used in technical assistance indicates a number of salient features of performance technology, especially a systems approach to implementing new technology. How performance technology might assume a greater role in technical assistance to small manufacturers is the subject for consideration.

For the purposes of this discussion we will adopt a comparatively simple, yet conceptual definition of performance technology as " a fundamental commitment to the identification of organizational performance problems and the development of the most appropriate solutions" (Dick and Wager, 1995, p. 35). Performance technology brings a holistic framework to the analysis of issues impacting human performance that are fundamentally interdisciplinary. These disciplines include psychology, industrial engineering, training and development, ergonomics and human factors engineering, organizational development, compensation and benefits, and learning and cognitive science.

Theoretical Framework

The theoretical framework used to review of the literature of technical assistance to small manufacturers over the past fifteen years begins with the establishing the importance for improving the competitiveness of such companies. The review is drawn from two primary fields: industrial modernization and economic development. Industrial modernization is the term usually applied to methods and resources deployed to improve the competitiveness of manufacturing companies through external or internal interventions. Economic development relates to the environmental conditions where manufacturing companies are located – the relationships to customers and suppliers, government policies and incentives, geographic proximity to resources. The perspective for analyzing the potential relationship between small manufacturer technical assistance parameters and a performance technology framework is a summary of existing literature, results of professional networking and personal experience. A history of the technical assistance movement in the United States lays the groundwork for understanding its fundamental needs, environmental constraints, proposed solutions, and relationship to an interdisciplinary view of performance technology. The crux of the argument for developing a conceptual framework for technical assistance begins with the understanding of the systemic issues that interfere with the economic growth of such firms. If the barriers to

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manufacturing modernization and resulting competitiveness are systemic, one might argue that solutions to these barriers must also be systemic.

However, this examination points out that there does not appear to be an acceptance of a common infrastructure or framework to deploy these solutions. Thus, researchers seem to agree on the type of solution and recommend various approaches to technical assistance, but there is paralysis in the implementation. The consensus solution for manufacturing modernization appears to recommend a strategy (Modernization Forum, 1993) that addresses the following types of dimensions:

- Technology
- Markets
- Work Organization
- Skills – managerial and front-line
- Finance
- Inter-Firm Cooperation
- Advanced Business Management Practices

These dimensions encompass a variety of disciplines that need integration for a systems approach to small manufacturing competitiveness issues. This perspective leads this writer to conclude that a systems view and interdisciplinary approach of performance technology offers a valuable model for the implementation of solutions to the competitiveness of small firms. This requires the deployment of mechanisms for organizational change in its performance infrastructure, thus performance technology offers a "method for designing the necessary performance system to achieve new levels of performance" (Rummler, 1999, p.47).

Research Propositions

The following research propositions guided the collection of documentation for this paper:

1. Why is it important to understand the issues of competitiveness facing the growth and development of smaller-sized manufacturing firms?
2. How can the barriers to competitiveness of such firms be categorized?
3. What are the alternative sources of technical assistance to small manufacturers and how well do they function in the United States?
4. What are the major conceptual approaches to technical assistance?
5. How does technical assistance relate to performance technology? Is there a role for performance technology theory and concepts in the development of a model for technical assistance?

Perspectives of Economic Development in Manufacturing

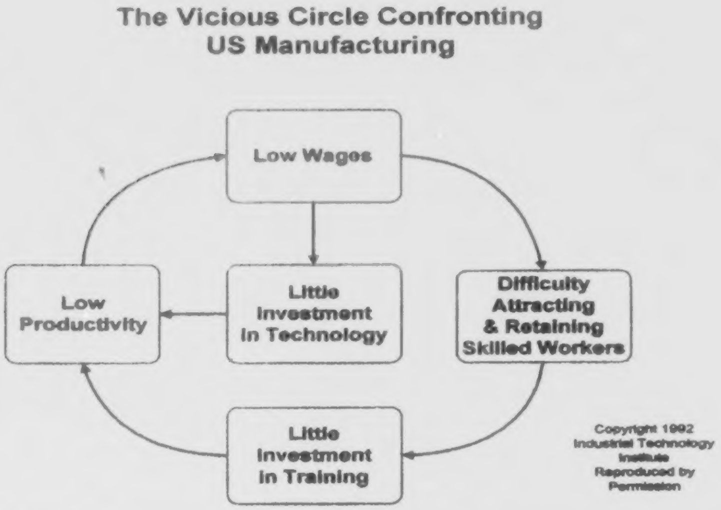
Although the number of US manufacturing jobs has decreased over the past two decades to about 19.1 million in 1993, the sector continues to generate a disproportionate share of secondary jobs – about 4.5 times as many as the retail sector and about three times as many as the personal and business service sector (Baker and Lee, 1992). In addition, manufacturing's contribution to US Gross Domestic Product (GDP) increased 1.5% (Bureau of Labor Statistics, 1992) in the 1980's. Also, manufacturing accounted for more than 2/3 of American export earnings in 1991 with a little over 20% of the workforce as reported in 1992 data published by the US Dept. of Commerce.

Why the Interest in Smaller Manufacturers?

A major shift has occurred in the size of manufacturing firms since the mid-1970's. From 1980 to 1990, the number of manufacturing firms has grown from 319,000 to 378,000 and 98% of these firms employ 500 or fewer workers. Concurrently, the number of employees in firms over 1000 employees decreased by over 20%, and this has helped spur the growth of smaller firms, especially those under 100 employees. Larger manufacturing firms reduced employment by over 1.2 million workers, and smaller firms added 2.2 million workers to yield an overall employment of 12.2 million US workers, 64% of the industrial workforce (Modernization Forum, 1993). While employment is a major factor in the importance of smaller firms, a more important statistic is the amount of value-added, accounted in aggregate form across firms. In aggregate form, such firms represent up to 60% of the final goods production costs, component, subassemblies and parts (Industrial Technology Institute, 1991) that determine the cost competitiveness and quality of US products.

An overall picture, given in Figure 1, depicts a number of the major components representing the never-ending cycle that small manufacturers typically encounter. It is derived from studies of hundreds of firms with data collected from the Performance Benchmarking service developed by Dan Luria (1993).

Figure 1


The Vicious Circle Confronting
US Manufacturing
Low Wages
Low Productivity
Little Investment in Technology
Difficulty Attracting & Retaining Skilled Workers
Little Investment in Training
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While there are a number of reasons for differences in competitiveness between large and small firms, many industrial researchers and economists blame a low adoption rate for new technology as a primary difference. To provide three examples, approximately 40% of firms with 250 employees or less have adopted the use of computer-aided design (CAD) compared to 74% of firms with more than 500 employees (Industrial Technology Institute, 1990). Comparative figures from the same database for computer numerical machines (CNC) used for cutting and shaping metal and other materials are about 30% for small firms vs. 77% for large ones. A more dramatic difference derived from that data is in the use of machining cells (a set machines with different functions grouped to complete a process) where it is 9% for small firms and 36% for large firms.

Needs, Barriers, and Opportunities Facing Small Manufacturers

There have been numerous studies conducted over the past 20 years examining the needs of smaller manufacturers (Manufacturing Studies Board, 1986; Organization for Economic Co-operation and Development (OECD), 1993; Frostbelt Automation, 1990; Shapira, 1990) as well as compendiums of tools and methods developed specifically for assessment of the small manufacturing context (Brandenburg, 1994 and Shapira, 1993). However, the study viewed with most credibility is the one performed by the National Research Council (NRC) in 1993.

The NRC study identified five broad needs determined from reviews of the literature, focus groups with small manufacturer owners/managers, interviews with industry association executives, interviews and site visits to both small manufacturers and service providers, and data sources provided by local government agencies. The five broad barriers to competitiveness or needs can be categorized as follows: disproportionate impact of regulation; lack of awareness; isolation; where to seek advice; and scarcity of capital.

The first NRC identified barrier is based upon a much greater economic regulatory compliance impact requiring a larger percentage of capital investment from small firms than for larger businesses. The regulatory environment imposed by national, state, and local initiatives include issues on trade, environment, employment, work place safety, health care and liability. As a result, small manufacturers seldom have the time or the resources to keep up with all the latest regulations as well as address them in a systematic way.

The second area of need reflects the general consensus that small manufacturers are often unfamiliar with changing technology, production techniques, and business management practices. This is often brought home heavily with regard to the implementation of new technology because it is likely to require "systems methods" interfacing across different functions of a firm. The integration of these functions entails understanding issues not only with the technology, but the work skills and support structure of a company -- issues that require considerable time and energy of management.

Isolation, the third barrier, results from firms having too few opportunities to interact with similar companies facing similar issues. Suppliers do not often have the opportunity to interact with their major customers or to benefit from the membership in a cooperative supplier improvement program (like many Japanese suppliers do). Recent benchmarking efforts of one manufacturing assistance institute has shown that more than 50% of more than 500 companies surveyed believe they can be ranked among the top 15% of all such suppliers. While this result is a statistical impossibility, it illustrates the limited knowledge many companies have of their relative standing in their own industrial groups.

For owners and managers of smaller companies, the difficulty of high-quality, unbiased information, advice, and assistance is the fourth barrier. Equipment vendors cannot be relied upon to provide unbiased advice, and they have a significant portion of external contact with small company management. Generally, the company accountant or the company lawyers are the external consultants most mangers trust. Yet their range of knowledge can be limited with regard to technical problems, replacing equipment or upgrading the skills of their workforce. The public sector offers a wide variety of confusing, uncoordinated, and competing services -- universities, economic development groups, community colleges, and government agencies.

The fifth of the identified barriers, scarcity of capital, means that operating capital and investment funds for modernization efforts are difficult to obtain. Regardless of the presence of manufacturing firms in a given community, is nonetheless surprising that many bankers do not understand manufacturing. On the other hand, many small company managers have a difficult time producing a solid business plan in a format the financial community can accept. A more recent phenomenon resulting from the mergers of local banks, has led to centralized decision-making where the known character of small company management is no longer part of the investment equation.

Conceptual Foundations for Technical Assistance

In order for manufacturing in the US to remain competitive, it is generally agreed that continuing investment in new technology is required, and this investment is a critical need for smaller manufacturers (Shapira and Youtie, 1997; Swamidass, 1997; Kelley and Helper, 1997; Shapira and Rephann, 1996). What is generally less accepted is that this investment requires a concomitant investment in human resources and associated strategies. Thus, most experts have purported a systems approach to the implementation of new technology.

One quasi-government agency that has continually advocated this approach is the Manufacturing Studies Board. "Realizing the full benefits of AMT (advanced manufacturing technology) will require systematic -- not piecemeal -- change in the management of people and machines ... a critical mass of interrelated changes is required in seven areas of human resource practices: planning; plant culture; plant organization; job design; compensation and appraisal; selection, training, and education; and labor-management relations (Manufacturing Studies Board, 1986, p.2)."

Their results from 16 case studies indicated the following conclusions for supporting a successful implementation strategy for AMT (1986, p. 55):

- the planners must give high priority to address the issue of employment security
- there must be a compelling business rationale, especially if accompanied by high performance expectations
- more profitable when human resource issues are understood and addressed in the planning stage and every subsequent stage in design, approval and implementation
- more effective when management has formulated a guiding philosophy dedicated to improving the plant culture
- require an openness to learning from one's experience and that of others, especially management and union
- unprecedented efforts to communicate thoroughly to employees and their the competitive realities of the business, conditions requiring AMT and plans for implementing
- a variety of initiatives to promote positive culture for employee relations and labor relations
- employee participation in implementation activities
- early assignment to the project
- broad training that begins before assignment to the project
- systematic, periodic evaluation of the effectiveness of AMT.

One conceptual approach that embodies the majority of these parameters and includes at least a salient endorsement of performance technology is HI-TOP (High Integration of People, Organization, and Technology) developed by Majchrzak, et. al., (1991), which proposed to eliminate the independent, asynchronous planning generally found in the deployment of new advanced manufacturing technology. The goals of this analysis are threefold:

- indicate what people and organizational capabilities are needed for a given technology plan
- identify if the appropriate people and organizational capabilities are likely to be in place in the organization, and
- suggest technology plan, organization, and people changes if needed capabilities are missing.

The result is that surprises are reduced and needed changes to technology, organization and people are identified in time to be smoothly implemented. While this approach not only makes sense conceptually, and it has been validated and proven in organizations like Digital Equipment Corporation and Hewlett-Packard, it has yet to show viability with smaller manufacturers. The reason for this lack of adoption is the significant resources it requires to complete all processes of data gathering, collection, analysis, and synthesis for planning and replanning.

A number of different solutions for the dilemmas and needs of smaller manufacturers may be proposed. These solutions might take the form of methodologies, economic development policies, theories of technology deployment, and various other implementation strategies. A brief historical summary of these solutions in terms of technical assistance strategies is provided next in order to gain a current perspective on alternative implementations.

History of Technical Assistance in the United States

The closest analogy to technical assistance currently characterized as industrial extension or outreach is the US Department of Agriculture's Extension Service. In cooperation with land-grant universities and state and local governments, there are approximately 9,600 full time county extension agents that disseminate new information, demonstrate new techniques, and offer technical assistance. As a technology transfer mechanism they are regarded as a huge success to their customer, the American farmer, in the 20th century.

Prior to 1988, there was no US national program for manufacturing assistance similar to that for agriculture. Instead there were a wide variety of state, local and privately sponsored programs performing some version of technical assistance, primarily for smaller manufacturers. There have been a number of reasons stated for the lack of national effort, but primary among them was unwillingness for the US to have an "industrial policy". Such a policy many argue (Osborne, 1988) would have the government picking winners and losers and would be the antithesis to a free market economy. Some of the state-sponsored industrial extension programs have had long and considerable success. A notable example is the program begun by Georgia in 1960 that has been held as a model for longevity and consistent state support. The Georgia program has a set of statewide offices and a technology center located on the campus of Georgia Institute of Technology. In the mid-1960's, the Pennsylvania Technical Assistance Program (PENTAP) was initiated and expanded later into the programs known as the Ben Franklin Centers and subsequently to its current form as Pennsylvania Industrial Resource Centers. In the late 1970's and throughout the next decade, there were numerous other programs initiated notably in Maryland, Massachusetts, Michigan, New York and Ohio.

These efforts were expanded in 1988 with the passage of the Omnibus Trade and Competitiveness Act. Along with revamping the old National Bureau of Standards into the National Institute for Standards and Technology (NIST) within the Dept. of Commerce, significant federal monies were designated to expand these programs. The overall plan was to establish a network of technology centers throughout the US to provide technical assistance to all types of small and medium-sized manufacturers. These Manufacturing Technology Centers were designated to serve particular geographic regions, and each major operational hub was funded initially at $6 million a year for the first six years of operation. State and private contributions or revenues matched all federal dollars.

As of this writing, the program known as the Manufacturing Extension Partnership (MEP) has 75 major centers and 350 satellite offices throughout the US, with at least one satellite operation in every state. MEP centers are designated to provide outreach services to firms with less than 500 employees. Under its new charter, NIST is charged with assisting industry improve technology development, process modernization, product quality and reliability, cost effectiveness, and commercialization. It is also authorized to provide technical assistance to state and local industrial extension programs and serve as link form those programs to other federally sponsored technology services. Notably absent from these efforts, however, are directives regarding a "systems deployment" of new technology incorporating organizational environment and people issues.

The MEP program recognized this shortcoming and established an alliance with the US Dept. of Labor to channel modest funding for a Workforce Working Group (Brandenburg, Shrader, and Wood, 1992; Great Lakes Manufacturing Technology Center, 1993). What occurs with the integration of technology and human resources supportive infrastructure within MEP is more dependent on center management than on federal policy. That is, many centers view the systems integration issue as a matter of best practice; other centers stick to their technology "roots" so that customer solutions always have an "engineering flavor".

MEP is not the only source of federal dollars for extension-like services. The US Department of Defense has long recognized the concept that US competitiveness in the defense business depends on the capabilities of a strong industrial base. One example was a project to establish a regional center for technical assistance in a geographic area heavily populated with small defense contractors (suppliers). The Program of Regional Improvement Services for Small Manufacturers (1993) or PRISSM augmented the existing services provided by the Institute for Advanced Manufacturing Sciences (IAMS) in Cincinnati, Ohio. The PRISSM project was designed and developed with the full cooperation of General Electric Aircraft Engines, the major customer for many of these suppliers. Its purpose was to not only test and validate a methodology for improving the competitiveness of the small firms, but to initiate the development of a permanent infrastructure of supporting organizations in the region, select and train the field agents, and position IAMS to be a full partner in training the national movement of extension centers. PRISSM is an example where the US Air Force, in this case, recognized the validity of integrating organizational, regional and people issues into the effective improvement of small manufacturers.

Sources and Strategies for Technical Assistance

One perspective for examining how smaller manufacturers can obtain the assistance they need to become competitive is to review how free market resources interact with these firms. One source is the relationships that they have built with their major customers (which in many cases are only one customer). Unfortunately in the US, there exist strong adversarial relationships between larger customers and their suppliers especially in vertically integrated sectors such as automotive and aerospace.

Another potential major resource for smaller manufacturers is the US university system. University faculties are trusted for their integrity and objectivity, but are often criticized for their very specialized knowledge being too narrow to help the smaller company. Larger firms, on the other hand, are known to have numerous joint ventures and close working relationships with large universities. The products of these ventures tend to have a narrow, state-of-the-art focus, which is the opposite of the state-of-the-practice needed to benefit smaller companies.

A third potential source for assistance is the federal government. Historically, the federal government has maintained a fairly low level of funding prior 1988 for direct assistance to small manufacturing companies. Three federal programs of note are the Small Business Administration, especially their Small Business Innovation Research set-asides, the Trade Adjustment Assistance program for companies impacted by adversarial import conditions, and the MEP program discussed above.

Another potential source of private sector assistance is the US equipment and software vendors. But these vendors are more interested in selling product, rather than making sure it is the right solution for the problem presented. While many vendors are willing to sell to smaller companies, many private consultants and consulting firms do not. In simple terms, small companies just do not pay enough, the advice is too narrow, and they also do not have good tools to select the right consultant or vendor.

A final type of technical assistance is that of manufacturing networks, a primarily self-help system of cooperation among a group of firms. Many such networks are fostered or promoted with government cooperation, especially in Europe. Networks of small to medium-sized companies can take many forms from informal discussion groups to co-production networks. In the US, there is a growing interest in manufacturing networks (Bosworth, 1993; Hatch, 1995).

Conclusions and Recommendations

One conclusion that may be drawn from the preceding review is that the barriers and solutions to increased competitiveness to small manufacturing firms are more broad-based than just the appropriate application of engineering knowledge and skills. The types of recommended solutions include the interdisciplinary approach understanding how to integrate the technology, the organization, and the people to the establishment of regional supportive infrastructures. Anther conclusion is to recognize that many concepts of performance technology have been applied, but not explicitly, to the domain of manufacturing technical assistance. Most of the approaches cited have not consciously utilized performance technology principles and only a very few performance technology professionals been involved in their design or implementation. Nonetheless, the need for performance technology principles in integrating the technical, organizational and workforce issues has been clearly demonstrated. At a minimum, a systems approach to deploy new technology in small manufacturing firms has shown growing acceptance, but not widespread adoption, in the marketplace.

Given that the business of technical assistance to small manufacturers is in its relative infancy, there are no readily known paths to applying the tenets of performance technology to this marketplace. Because there exists a decentralized system in the US where no one organization has the franchise on this market, a best entry point is the regional third party or intermediary organization. Such organizations exist is various forms and most are of the membership variety, sometimes as a separate organization and sometimes linked to other organizations. A good source to understand the functioning of such organizations is given by Flynn and Forrant (1995).

From a conceptual perspective, these intermediary organizations provide a social infrastructure for the modernization process where the central theme is companies learning from each other. Among the benefits they provide are:

- helping firms to become more flexible, problem-solving enterprises;
- facilitating the thinking through strategic issues in a non-defensive atmosphere; and
- providing valuable service to firms where the private sector is either unavailable or unwilling.

These organizations are often actively working to forge new relationships among firms and related economic and workforce development agencies at the regional level. Certainly an MEP center qualifies as one of these intermediary organizations. It would be a rare MEP center indeed that has all the capabilities to serve customer needs in their region. A good source for the nearest center can be found on the NIST World Wide Web homepage.

A second nearby source is a local community college, especially the business services or customized training unit. Most states have funds that target small manufacturers as an economic development strategy, which are generally delivered through community colleges. While many opportunities focus on training per se, there is a growing recognition for a wider involvement from organizational development and management specialists especially for medium-sized companies who do not have that internal capability.

A third source, possibly more difficult to locate, are organizations, generally membership-based, who serve a special or local clientele such as a group of unionized auto suppliers, an agency providing services to an industrial park, or a business owner's association in a subsection of an urban area. Most can be located through a county economic development office or a local chamber of commerce.

Contribution of this Research to HRD

Given the preceding discussion and history, what does this mean for performance technology in particular and HRD in general? First, because manufacturing technical assistance in the US is a recent but expanding field, there exist significant opportunities for investigating and learning of best practices with generalizable findings. Economic development efforts that involve "brownfield" redevelopments in distressed urban areas, the creation of business incubators to spur the development of high technology products and services, and the construction of industrial parks are three types of initiative that are commonly formulated. In these cases, as well as for the existing manufacturing technology centers, opportunities exist for theoretical contributions from research studies, application studies leading to tool development and testing, consulting activities, and commercial sales and product development. From the previous discussion, it can be determined that well-informed performance technologists have many tools, methods and approaches that are relevant to the needs of small manufacturer.

This writer concludes that HRD has a significant role to play to understanding and improving the methods by which technical assistance can be formulated and delivered effectively and efficiently. Such research and demonstration efforts will be fundamentally interdisciplinary, thus forcing integration across fields where academic cooperation is still rare. It can argued, however, that the resulting findings will have an impact not only on the field for HRD, but on the economic prosperity of US manufacturing businesses, employees and their communities.

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Understanding Technology Diffusion in Northeast Oklahoma Small-to-Medium Sized Manufacturers

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In recent years, small-to-medium sized manufacturers have become more concerned with understanding how change and use of Internet technology have led to an emphasis on the employer as a trainer. To be effective, each manufacturer has to have a voice in the design of its training. In order for small-to-medium sized manufacturing employees to implement Internet technology quickly and inexpensively, it is important to understand how and what motivates the employees to learn Internet technology.

Keywords: Technology Diffusion, Small Manufacturers, Self-Efficacy

Research problem

A need existed to better understand and identify effective technology diffusion training approaches by Oklahoma small-to-medium sized manufacturers toward training their employees on how to use the Internet to do business.

Research Questions

The following research questions were used to explore views, opinions, perceptions, and profiles of Oklahoma small-to-medium sized manufacturing employees regarding their usage of the Internet and e-mail.

1. How does the Motorola Software Diffusion Model (Basili, Daskalantonakis, & Yacobellis, 1994) compare to the Gatekeeper Technology Diffusion Model (Allen, 1977; Zelkowitz, 1996) for training employees in Oklahoma small-to-medium sized manufacturers?
2. What are Oklahoma small-to-medium sized manufacturing employees' perceptions regarding perceived ease of use, perceived usefulness, and self-efficacy related to the use of Internet technology utilizing a technology diffusion questionnaire?
3. What are the perceptions of Oklahoma small-to-medium sized manufacturing employees in the Computer Assisted Technology Transfer Project concerning the use of the Internet and e-mail?

The purpose of the study was to understand how change and use of Internet technology have led to an emphasis on the employer as a trainer in Oklahoma small-to-medium sized manufacturers. This emphasis has stimulated a paradigm shift. To be effective, each business has to have a voice in the design of its training. In order for small-to-medium sized manufacturing employees to implement Internet technology quickly and inexpensively, it is important to understand how and what motivates the employees to learn Internet technology. This involves a concentration on the human element and the use of adult learning principles. Understanding what conditions and circumstances are needed to transfer Internet technology for small-to-medium sized manufacturing employees is a major challenge.

Because of the lack of knowledge of diffusion of Internet technology among small-and-medium sized manufacturers, the U.S. Department of Defense funded a research project with the College of Education and the College of Business Administration at Oklahoma State University. The Computer Assisted Technology Transfer project focused on training Oklahoma small-to-medium sized manufacturing employees on using the Motorola Software Diffusion Model (Basili, Daskalantonakis, & Yacobellis, 1994), and the Gatekeeper Technology Diffusion Model (Allen, 1977; Zelkowitz, 1996) toward the diffusion of Internet technology. Manufacturers using the Internet technology were then encouraged to conduct business with the U.S. Department of Defense.

The two models selected were chosen because they could be modified to meet the needs of the research; could be applied to practical work environments quickly; were not strictly based on mathematical principles; were

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flexible; had an evaluation component throughout the model's application; and could be easily implemented into a manufacturing environment. In addition to diffusion of Internet technology the study had several additional important components including model identification, selection, and implementation; questionnaire identification, modification, and dissemination; training design and implementation; quantitative and qualitative data collection utilizing a t-test to understand the questionnaire results; and observations and interviews.

The Internet is a valuable resource for small-to-medium sized manufacturers, and businesses spend large sums of money in order to produce more knowledgeable employees, who in turn will be more productive and bring more profits to the organization. More money is spent on workplace learning than on all of public higher education (Carnevale, 1989, p. 27). This huge commitment of resources towards workplace learning reinforces the importance of researchers' need to understand how manufacturing employees use Internet technology and how manufacturers can diffuse Internet technology into the manufacturing workplace quicker and for less money.

Although manufacturers may not be able to produce their own training program, they can encourage their employees to use Knowles' (1970) self-directed learning principles based on his adult education theory. By utilizing Knowles (1970) adult education theory employers can motivate their employees to learn what they need to know and at their own pace, which allows them to not only be self-directed and rely on their past experiences, but to be problem-centered rather than subject centered with little or no intervention by the employer (p. 48).

Research Design

This descriptive study examined Internet technology usage in Oklahoma small-to-medium sized manufacturers, and focused on employee acceptance and resistance specifically toward e-mail and the World Wide Web. The survival of small-to-medium sized manufacturers is directly related to their adoption of Internet technology as a regular part of doing business. Accelerating the adoption of Internet technology among small-to-medium sized manufacturers is in the nation's interest because these manufacturers have a major influence on the U.S. economy, and generate numerous goods that in turn generate numerous jobs.

This study involved the use of a technology diffusion questionnaire that was modified from previous questionnaires (Bagozzi, 1992; Compeau, 1989) focusing on software diffusion. Several affective feelings are involved when employees are trained on how to use Internet technology, including intimidation, lack of confidence, helplessness, competence, and confidence. These feelings were measured with a questionnaire and categorized into sub-categories of perceived ease of use, perceived usefulness, and self-efficacy. The questionnaire used a Likert scale to measure the employees' responses. Within each section affective questions were asked regarding their feelings toward the use of Internet technology. Each of these categories then had 6 to 10 items to determine which employees were more likely to diffuse the new technology. Employees who had lower confidence levels on the Likert scales in one portion of the questionnaire had similar confidence levels in other portions.

The questionnaire was pilot tested on OSU graduate students working on the CATT project. The questionnaire was given to each all employees' at 30 sites upon completion of their Internet training. The return rate of the questionnaire was 100%, and each questionnaire distributed was completed anonymously per company. The population for this study was 30 northeast Oklahoma small-to-medium sized manufacturers, defined as manufacturers with fewer than 200 employees. These manufacturers were selected because of their previous working relationship with the OSU-Okmulgee business incubation program representative through their involvement with the Northeast Oklahoma Alliance of Manufacturers, because of their willingness to receive the Computer Assisted Technology Transfer training at the manufacturers site, and because of their willingness to consider doing business with the U.S. Department of Defense in the future. Two manufacturers were corporate owned, and 28 were privately owned. The manufacturers produced a variety of items including boat trailers, an artificial sweetener, parts for larger manufacturers, bows and arrows for Olympians, screws and bolts, and special items requested from them. Likewise, the employees who participated in the training were diverse. They included engineers, secretaries, company owners, technology trainers, and front-office clerical help. Each company had no less than 2 employees participating in the training, and 1 company had more than 20. Some of the employees shared that they had bachelor degrees while the majority were less educated. Some employees spoke of their eagerness to get on the Internet, while others spoke of their apprehension about using new technology and accessing the Internet. The company owners or the plant manager in corporate owned companies selected who would receive the Internet training and access to the Internet on their work computer.

Results and Findings

Observations and telephone interviews were used to look at all employees after they had received Internet training. Quantitative data was collected from the questionnaire and qualitative data from interviews and observations were combined to describe Oklahoma small-to-medium sized manufacturing employees' views on implementing the Internet into their work environment. Several themes were identified through qualitative data collection including: (a) access, (b) resisting technology, (c) technology acceptance, (d) technophobia, (e) clear payoff, (f) technology adoption, (g) scaffolding, (h) hand-holding, (I) tracking information, (j) acceptance by employees of the trainers, (k) interoffice communication, (l) implementing technology change, (m) prioritizing Internet opportunities, and (n) recreational versus personal use of the computer.

- Internet technology training outcomes were not influenced by either the Gatekeeper (Allen, 1977; Zelkowitz, 1996) or Motorola Model (Basili, Daskalantonakis, & Yacobellis, 1994) introduced during the study of Oklahoma small-to-medium sized manufacturing employees use of the Internet.
- Employees want to know why they should learn what the trainers are teaching rather than be concerned with perceptions regarding perceived ease of use, perceived usefulness and self-efficacy related to Internet usage.

Good technology training design is rooted in the idea that people learn best what they really want and need to learn (Wilson, 1998). Employees must be engaged in and in control of their learning experience through the training process. Employees of small-to-medium sized enterprises want to know what is in it for them. This is best accomplished by introducing a set of objectives and establishing goals at the beginning of the training. By establishing goals and objectives, the employer can quantitatively measure the adoption of technology in the small-to-medium sized manufacturer. For example, the clear objective of "you will learn how to open and save a file" lets people know whether they need to proceed. However, the unclear objective of "you will understand how interpersonal style can affect others" does not. Learners will not participate in training, which results in learning, unless they see a direct benefit of participating in the training. Learners need to understand how the training will benefit them personally or professionally before they will participate.

Many researchers take time to develop models but do not take the time to see if the models will work. Because of the lack of implementation of Technology diffusion models, being able to predict whether or not the employees will use the Internet technology is an important issue for researchers to further investigate. Regardless as to what model was used for the technology diffusion training, what mattered most was understanding the needs of each individual employee at the manufacturing site.

To understand each employee, the trainer had to implement various adult learning principles to encourage the use of the Internet technology. These principles were measured utilizing an instrument that had Likert scales to look at perceived ease of use, perceived usefulness and self-efficacy of each employee and their feelings towards Internet technology. The utilization of these adult learning principles allowed the trainer to better understand each learners' andragogical needs, and the employees were able to make meaning of the training (Knowles, 1970).

In order to understand what learning has taken place, it is more important to look at the individual than at the organizational structure. But, human resource development research focuses on the organization rather than on the employees' learning experiences. Research concentrating on individuals versus organizations can address what people want to learn and how they want to learn it. Knowles (1970) adult learning theory can help explain how employees who are self-directed learners and problem-solvers develop their own level of confidence in using Internet technology and can trouble shoot when it comes to doing Internet searches. When looking at individuals, the trainer can understand whether or not the new technology is being diffused into the work environment. However, looking at the organization does not give the trainer the whole picture because the technology may not be diffused in the manner for which it was intended. Employees are less intimidated by new technology when they can take control of their own learning environment and can immediately practice using the Internet technology at home. For example, one employee implemented the technology rapidly by purchasing a new home computer after participating in the training session, by working on material at home, and then by taking work-related information back to work with her to use.

- Employee perceptions are relevant and employers with meager means for employees to quickly
- adopt new technologies must look for creative ways for employees to adopt new technologies.
- Since adult learners learn what is meaningful to them, trainers must personalize learning experiences to be compatible with the organization's goals.
- Personalizing the learning experience quickens technology adoption rates among employees and allows employees to do their job better by understanding and using Internet technology.

- Employers and trainers need to look at adult learning concepts rather than theoretical models as the starting place for designing technology training. Training that is based on adult learning concepts that rely on the learner's technology perception concerning ease of use, usefulness and self-efficacy should result in the diffusion of technology more quickly and easily than previously done.
- Understanding how employees use their personal learning style in Oklahoma small-to-medium sized manufacturer directly influences the need for training that is easily implemented and contributes to the survival of the manufacturers.
- Small-to-medium sized enterprises that train their employees to diffuse Internet and e-mail usage are more likely to stay in business and increase production than those which do not provide training.

The key to implementing Internet technology is based on the individual employee's motivation to understand its usefulness. The process of technology diffusion is successful in Oklahoma small-to-medium sized manufacturers when they examine the employee's needs within the organization rather than relying on models to disseminate Internet technology. Such an examination involves assessing the employee's learning style, which allows immediate application of what the employee had learned. The immediate application of the technology also allows the employees to understand the relevance and importance of using the new technology at their workplace. Employees could then transfer the new knowledge to the organization and start a process of shared information with their employer and their co-workers. Such a process would result in an economic gain for the company because of increased productivity. For example, a few of the manufacturers in the study observed immediate results by implementing the Internet technology in the form of listing their company contact information on the Northeast Oklahoma Alliance of Manufacturers home page. One of the largest participating manufacturers was eager to train the majority of its employees because the main office had made a $4 million investment to implement a new accounting system using web-based technology.

- Employees desire training that emphasizes "what's in it for me" and which will allow them to utilize the new technology immediately.
- Models academicians develop often have limited use and are not user friendly because they cannot be implemented into a work environment.
- Employees want to understand how learning a new technology will solve a problem they currently have.

The study was conceptualized as a way to determine which of the two technology diffusion models, the Gatekeeper (Allen, 1977; Zelkowitz, 1996) or Motorola Model (Basili, Daskalantonakis, & Yacobellis, 1994), was most effective in training employees in small-to-medium sized manufacturers on using Internet technology. However, the actual experiences of the trainers and the training results indicate that the need for the training should determine the model selection rather than having the model selection drive the training. The results also exemplify the need for the trainers to understand the needs of the employees within the organization being trained, rather than the organization deciding what the employees need to know. The employees need to be involved in the training design and implementation to get the most from the training.

This study demonstrates that there is clearly not enough collaboration between academicians and practitioners. Academicians should strive to understand that small-to-medium sized manufacturers do not understand the importance and the use of technology diffusion models such as those used in this study. They do, however, understand the importance of Internet technology. Rather than academicians researching how theoretical models unfold, they should go into the field and talk to workplace training practitioners who are actually conducting training to formulate models. Instead of creating theoretical models in abstract terms, academicians should ground their models in the terminology of real practice and use practitioners as resources.

Most employees have a task-centered or problem-centered approach to learning, which Knowles (1970) correctly described in his theory of andragogy. This approach was evidenced when an employee participating in the study, without any direction from the employer, contacted raw material suppliers using e-mail to see if they had the material they needed to make a part. By giving meaning to the learning task (Knowles, 1970), the employee was able to implement the Internet technology with little or no effort and direction. Having employees connect with the Internet training by understanding how training could help solve their work-related problems and challenges motivated the employees to learn what they really need to know. Once the learning content is relevant to the participants' actual work, technology enables small-to-medium sized manufacturing employees to get to the next level of relevance by making learning on the Internet an internal part of the workday. By not confining training to scheduled events, it is always accessible as needed and just-in-time. This just enough and just-in-time learning is learning that is introduced to the employee when it will be most useful to them to implement (Wilson, 1998).

- Successful training occurs when the trainer is welcomed, accepted, and respected by the group involved in the study.
- The trainer must be empathetic toward the value of time of the Oklahoma small-to-medium sized
- manufacturer, because some employees may also be company owners and they may be losing
- money if they or their employee is not available to take customer phone orders because of their
- participation in the training.
- Employees need to understand the usefulness of the Internet technology that is being introduced before they will use it.
- Both personal and work-related learning takes place when employees are engaged with Internet technology that encourages new organizational relationships.
- The Internet has both personal and work-related elements that can be tied to training.
- Employees will feel as though they can contribute to the organizations success if they are encouraged to utilize the Internet to find unique opportunities for the organization.

A few of the employees who participated in the training adopted the Internet technology for their personal use. Manufacturing owners who participated in the training were more interested in the business aspects of the Internet, and employees of larger manufacturers found the Internet to be more entertaining when looking up such things as fishing fact sites, baseball information, or stock quotes. Employees looked up information on the Internet based on what was important to them, and most did not realize that they were learning in the process. Employees have different social roles that influence what information the employee decides to access via the Internet. Consequently, employee uses of the Internet varied and involved such things as planning a trip to Germany, hiring an international sales representative, and taking product orders from overseas. All of these uses deal with various individual and work-related aspects.

Technology trainers should integrate individualized Internet learning environments for employees by providing authentic tasks that legitimatize reasons to use the new technology (Wilson, 1998). Technology trainers should also integrate Internet resources into the work environment and cultivate informal, employee-directed uses. This will encourage the adoption of the use of the Internet and promote independent and collaborative inquiry, student-directed learning, and professional responsibility within organizations (Wilson, 1998). Employees also should be encouraged to adopt the Internet through a variety of incentives, policies, and practices, but keep to a minimum explicit mandates and requirements. Technology trainers should seek to create an atmosphere of expected and natural Internet participation without the feeling of coercion. One example could include letting employees have a say as to what information is put on the company's home page.

- Training modules are not as important to the employee as is the overall training environment and support provided after the training.
- Technology diffusion rate will be higher when the trainer is knowledgeable of the employee's affective feelings about the technology.
- Technology diffusion rate will be higher when the trainer conveys the risks and benefits to employees.
- Manufacturers can benefit financially when effective technology training is used.
- Technology diffusion rate will be higher when trainers understand the needs of the manufacturers receiving the training.

Overall, the Internet training was very successful for all of the small-to-medium sized manufacturing employees who participated. All but one manufacturer began to use the Internet technology that was introduced to them through the Oklahoma State University training. However, this implementation involved a certain amount of risk. One employee still preferred to look up information that was available on the Internet in the library because "there was too much information on the web."

- Employees perceptions regarding perceived ease of use, perceived usefulness, and self-efficacy are directly related to their feelings of confidence and competence toward Internet technology.
- Employees perceptions regarding perceived ease of use, perceived usefulness, and self-efficacy are useful in predicting technology diffusion.

Employees must emanate feelings of competence and confidence toward new technology after receiving training. If employees do not feel competent and confident about using Internet technology, they will be overcome with anxiety, and they will not diffuse the new technology into their work environment. Manufacturers with employees who scored high on the questionnaire's Likert scale exhibited confidence in using the new technology when they were observed. At one manufacturer one of their employees sought out the trainer to tell how much money he was saving by using the Internet. In this way he exemplified not only that money can be saved, but also that he felt confident and competent with the new technology.

Small-to-medium sized manufacturers have a lot to gain by implementing Internet technology. Several of the participating manufacturers were already benefiting from their participation in the training and saving money by sending documents electronically instead of shipping them overnight. Research conducted by Amonsen, Moore and Taylor (1994) found that the benefit-cost variables were better predictors then psychological characteristics for predicting technology diffusion. By implication, when small-to-medium sized manufacturers understand how Internet technology can benefit their bottom line they are more likely to implement the new technology even if they are not comfortable with the new technology.

Conclusions

The technology challenge will continue for small-to-medium sized manufacturers, but through continued HRD research, researchers can translate what is known about learning and teaching how to use technology in the real-world training environment using new knowledge. This study contributed to the support of action learning activities, and helped define the effectiveness of training activities because despite great advances in technology training, the impact on the manufacturing industry has been less than spectacular with about 75% of all training still being conducted in the classroom (Wilson, 1998). In business, content, time, and financial resources often compete for priority when designing training utilizing technology. It is more crucial than ever for small-to-medium sized manufacturers to play a central role in defining and developing their own technology training for their employees. In order for manufacturers to do this, they need to form alliances with academia to help coach them through the beginning stages of this process and then forge ahead on their own. One method to disseminate new technology quickly and inexpensively would be to organize large group training sessions at one indigenous site. This would allow employees to form small learning groups of two or three people to help and to learn from each other. Such training would reach a large number of employees and could allow the researcher to measure the results quickly and easily (Wilson, 1998). This would also allow for learning to happen through experience (Dewey, 1938, p. 27). "An experience is always what it is because of a transaction taking place between an individual and what, at the time, constitutes his environment" (p. 41).

New HRD Knowledge

This study reminds HRD researchers and practitioners to look at the individual learner within an organization and not just the needs of the organization. Overall, this study reinforced the efficacy of adult learning theory by demonstrating that employers need to involve employees in the Internet training process, and suggests that technology can deliver effective training. While the Motorola (Basili, Daskalantonakis, & Yacobellis, 1994) and Gatekeeper Models (Allen, 1977; Zelkowitz, 1996) provided insight into the utilization of technology, adult learning principles were the key factors in explaining the employee's ability to learn to use the Internet technology. Thus, this research demonstrates that for effective technology diffusion to occur, the focus needs to be on the individual learner rather than on the organization. In a 1997 questionnaire conducted by the Instructional Systems Association, a trade group representing about 150 training suppliers and human resource training staff from nearly 90 corporations were asked to indicate their current use of technology versus future use of technology for delivering non-technical training in the next two years. They predicted a 33% increase in using the Interent and an 18% increase in using CD-ROMS for non-technical subjects (Cohen & Rustad, 1998, pp. 30-37). Employees are likely to implement a new technology for personal and work-related purposes when they are self-directed, utilize their past experiences, and serve as problem solvers throughout training. Although organizational goals are important, effective diffusion of a new technology results not from the specific diffusion model used, but from employers focusing on the preferences of employees' motivation to utilize the new technology.

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Human Resource Practices in Mexico and the US: Selected Manufacturing Companies

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Executives from 62 selected small export manufacturing companies were interviewed to identify similarities and differences in human resource related practices within their organizations. The predominant practices in the American companies were training, compensation and benefit packages, and selective staffing. The predominant practices reported by Mexican executives were training, literacy education, and company sponsored activities. HR practices in the American companies were directed more toward specific job performance, while in the Mexican companies they aimed more at general personal growth and human relations.

Keywords: Human Resource Practices, Cross Cultural HRD, Latin America

The study collected information about similarities and differences in training and human resource practices between successful smaller manufacturing companies in the South Central United States and South Central Mexico which export a portion of their products to other countries. Formal face-to-face interviews with key managers were conducted, audiotaped, transcribed, and analyzed.

The problem was that, while smaller companies comprise the largest and still growing proportion of the US economy and an even greater proportion in Mexico, there is little reliable information available about how these companies develop their human resources for organizational success.

The data available have been sparse and incomplete. And they have been gathered in so many ways and by such varying categories as to make them impossible to analyze or compare. There is little literature in the US and virtually none available in Mexico about smaller manufacturing companies related to training per se.

However, there is substantial literature related to so-called high performance work practices in the larger companies in the United States. The future of competitiveness for the American company is related to how well its workers are trained, how flexible and adaptable they are, and whether it is a high performance workplace. (Potter & Youngman, 1995). America's management paradigm has shifted to provide employees greater opportunity to influence the outcomes of work organizations. Through changes in the design of work and a renewed emphasis on the importance of training and development, selective staffing, compensation, and information sharing, management has begun to realize the effect workers can have on the attainment of organizational goals (Levine, 1995).

High performance work practices assist people to involve themselves in the decision making and problem solving processes of their work activities. Based on an analysis of previous research, some of the most frequently implemented high performance work practices are quality circles, work teams, job rotation, total quality management, crosstraining, employee committees, training and development, selective staffing, compensation, and information sharing (Young, Snell, Dean & Lepak, 1996; Marlow, 1998).

By allowing workers to influence their work activities, organizations can take competitive advantage of the human element. Creating work environments which fulfill human, social, and psychological needs allows organizations to reap the benefits of increased productivity, product quality innovation, and flexibility (Schutz, 1994; Mirvis, 1993; Marlow, 1998.)

Smaller businesses have always comprised the preponderance of the economy in the US and throughout the world. The inception of the North American Free Trade Agreement (NAFTA) may have provided an additional incentive for American and Mexican manufacturing companies to export. And successful companies provide information which is more likely be emulated or adapted for increasing success in other companies. These factors have led to the identification of the target population as key managers of successful smaller Mexican and American manufacturing companies which export.

The purpose of the study was to identify and compare the training and human resource practices of successful smaller manufacturing companies in Mexico and in the United States.

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Research Questions

What are the training and human resource practices of smaller manufacturing companies in Mexico and the United States?

What are the similarities and differences between the training and human resource practices of smaller manufacturing companies in Mexico and in the United States?

Methodology

The methodology for the study was the conduct and qualitative analysis of interviews with top managers of smaller Mexican and American manufacturing companies which export their products to other countries. Transcripts of the interviews were reviewed through unstructured textual analysis. Qualities of similarity, frequency, and proximity, range of participant sources, and clarity of themes, thoughts, phrases and words were identified, sorted, and compared.

Interview Guide

A formal interview guide was developed in Spanish from the feedback of subject matter experts in Mexico. The experts were economists, academics, consultants, writers, and business leaders who were experienced with smaller manufacturing companies which export. The guide included descriptive questions about human resource practices, success, exportation, and demographics. The instrument was designed by the principal researcher, who is fluent in both languages. All items were identical equivalents in both languages, with the exception of one minor item which had no relevance in the United States and was deleted in the English translation.

Populations

Interviews were conducted with one executive from each of 62 successful manufacturing companies, or similar sized divisions of larger companies, which exported products. The companies were defined as "smaller" because they employed approximately 50 to 500 persons. There were separate populations of 31 companies each in the State of Puebla, Mexico and in the State of Oklahoma, US.

Each population was identified by criteria for success which were accessible in their respective countries. For reasons stated below, it was not possible to operationalize "success" in a common way across the two countries.

In Mexico, purposive and snowball sampling were used to identify participating companies. A research decision was made to purposively collect data from companies identified as successful by executives of other companies. Snowball sampling was chosen as the only way to get access to these executives, since a referral from a business peer was normally a prerequisite to entry for a data collector in Mexico.

Success was defined by the identification of a sample selected by reputation among peers. Since there were no data available from which to identify a population of successful companies by measurable criteria, it was determined that, while biased, selection by perceived reputation was likely to yield more subjects functioning at higher levels than selection with no criteria.

Initially, a few apparently successful companies were identified by officials at the Mexican university sponsoring this study whose owners or top managers were also board members, benefactors, or alumni of the university. These respondents were then asked to identify executives of other small exporting companies which they believed to be successful and who could be contacted with a referral from them. Those most frequently identified were invited to participate in the study.

Additional respondents would have been otherwise difficult to identify due to the frequent incompleteness, inconsistency, non comparability, and unreliability of statistics about companies in Mexico. They would have also been unlikely to participate due to their desire to hide or understate their success for fear of being targeted by the government or by either industrial or common thieves.

A wide range of industries representative of the manufacturing sector in the State of Puebla and South Central Mexico was incorporated into the interviews. These included rustic furniture (6); ceramics (2); clothing (7); marble and stone (2); plastic products (3); mechanical parts and appliances (2); snack foods (3); industrial chemical processes (2); and textiles (4).

In Oklahoma, the 31 participants were the companies which agreed to the interviews out of a population of 40 successful companies which had responded to a preceding mailed questionnaire sent to the entire population of 242 small manufacturers and processors in the 1997 Oklahoma Directory of Manufacturers and Processors.

Success for them was defined as having demonstrated a profit for each of the preceding five consecutive years, and having had virtually no employee layoffs during the same period of time. Forty of the 86 companies providing usable responses to the preceding questionnaire qualified as successful under these criteria.

A wide range of industries representative of the manufacturing and processing sector across Oklahoma was incorporated into the interviews. These included, among others, sound speakers, office supply forms, technical publications, energy resource exploration, petrochemicals, food chemicals, food processing, chemical textiles, metal forging, metal alloys, wire manufacturing, tool and dye making, electrical measurement devices, heating and air conditioning products, aerospace manufacturing, small parts manufacturing, commercial furniture, and components for commercial construction.

Procedures

Interviews in both countries were carried out by the same investigator accompanied by an assistant who audiotaped each interview with two mini cassette recorders and took written notes of verbal and nonverbal responses by interviewees. The interviewer and assistant discussed and compared their impressions of each interview at its conclusion. Each interview was followed by a tour of the facility which included an observation of production processes and of worker performance and interactions. This was followed by the development of a narrative of overall impressions about the company.

Audiotapes were transcribed verbatim on disc and hard copy by a transcriptionist who was trained by the interviewer to attend to the idiosyncratic aspects of these particular interviews. Transcripts were reviewed and checked against notes, and corrected with the audiotape where indicated.

In Mexico, the assistant and the transcriptionist were both local Mexicans and all transactions were conducted in Spanish. Transcripts were translated into English with the use of the software program Globalink Power Translator Pro v6.2. The translation was reviewed and corrected by the interviewer, and found to be sorely lacking. The transcripts were comprised of informal, colloquial, Mexican Spanish, much of which is expressed more as a series of idioms than of words. In the end, the interviewer relied upon the original Spanish transcripts.

In the US, the assistant and transcriptionist were from Oklahoma and southern Kansas, and all transactions were conducted in the same was as in Mexico, with the obvious exception of the language used.

Results

Most of the American companies had at least one full time person in charge of human resources, and the larger of them tended to have more human resource people. The staff sizes ranged from one part time person to eight full time members. In Mexico, Some of the companies had designated a specific area of human resources, but many did not. Where the specific area was designated, it was usually focused more upon maintenance duties related to hiring, payroll, and absenteeism than directed to human resource practices. The human resource administrator was sometimes the chief accountant, the director of operations, the bookkeeper, the union negotiator, or the owner.

Virtually all companies provided training to their employees. The American plants implemented mostly internal technical training and internal and external management development. Several specified problem solving related skill training for workers and managers. Several also collaborated with local vocational-technical schools to provide or to expand technical and computer related training opportunities to their employees. Only four manufacturers specifically identified cross-training as one of their high performance strategies. Job rotation was, surprisingly, only mentioned by one firm.

In Mexico, training and development for workers was mostly of the "on the job" variety. Workers were assigned as assistants to more knowledgable employees until they were recognized as able to function independently. Some plants encouraged workers to attend school on their own time, and a few had made specific arrangements for transportation to basic literacy programs. Managers were sometimes reimbursed for higher education expenses, and many of the top managers participated in management development seminars in Mexico and in the US.

Formal programs directed to the development of specific work related skills were less common in Mexico. However, in a marble and stone company the top managers provided direct training to the workers. Many were taught to operate two machines simultaneously which had previously each been operated by one person. This job redesign training was provided for workers who volunteered and were selected. They were rewarded with an approximately 50% increase in salary. Most of these workers were also crosstrained on other machinery. The plant manager in this case was an industrial engineer who had received additional training in the US.

Regarding compensation, nearly all participating US companies recognized the importance of providing competitive wages in order to attract and retain the best employees. Pay ranges varied from a low of minimum wage to $9 per hour in a component design and assembly plant to a high of $10.50 per hour for receptionists and $26 per hour for maintenance mechanics at a chemical food processing plant.

The latter paid very high wages for its location, but seemed more than willing to do so in exchange for the opportunity to hire the best workers available. And the former, which might have fit the description of "bottom feeder" for its low wages, claimed to be sufficiently competitive in its area because of additional forms of compensation. In fact, it cited several workers who had left for moderate wage increases elsewhere but had returned because of other benefits, including a supportive psychological climate. Variations of compensation across companies included profit sharing, a profit bonus pool, merit increases, and bonuses for exceeding production quotas and for perfect attendance.

Compensation in the Mexican companies ranged from minimum wage to from two to four times minimum wage, depending upon the perceived need for a stable workforce and the value to the company of skilled or trained employees. A form of profit sharing was present in a few plants where management indicated that its presence had affected production in a positive way. Medical benefits varied from none to very moderate. Most workers were relegated to services in the state run social security hospitals. Retirement benefits were required by the government but were quite modest. Other benefits not required by the government were rare.

Since salaries and benefits were usually not very far above the minimum legal standards in Mexico, approximately ten percent or less of that in the US, this "hand to mouth" condition left many workers dependent upon the good graces of their employer as the sole recourse for medical, legal, or financial assistance through crises. Employees often brought personal problems to the attention of the human resource person in the hope of intervention on their behalf. This form of employee help is very different from the American variety of employee assistance program.

In the US, selective staffing was given high priority in numerous companies. The importance of hiring persons with appropriate technical skills and a positive work ethic was emphasized. One plant conducted extensive testing of potential employees. Several others screened for potential permanent employees by doing initial hiring through temporary employment agencies and selecting the most promising from the "temps". Two firms stressed the value of efforts devoted to the retention of desirable workers.

In Mexico, staffing was not done as selectively in most cases. However, many companies seemed desperate to find enough workers who could learn quickly and who would come regularly to work. A few plants had instituted a formal probationary period to precede year round employment, as they would often dismiss workers when the demand for their products was reduced by seasonal or other variations in the market.

One American company said that, after the implementation of work teams, its profitability had doubled. It regularly assigned potentially high performers to cross disciplinary teams which were given specific organizational or technical problems to resolve. Members worked together part time on their group projects while continuing in their regular positions. Surprisingly, only one other plant stated that it had incorporated team building activities.

On the other hand, work teams were present in several of the Mexican assembly plants, particularly in ceramics, clothing, and appliance manufacture. Some teams met weekly or daily to address issues of efficiency or specific assembly problems. Job rotation was present in several companies on a limited basis, as was crosstraining.

Related practices of the American companies included, in descending order of frequency, tuition reimbursement for additional education, on the job training, sponsored social activities, various forms of employee recognition, the conduct of performance evaluations, and conscious efforts to incorporate fun and enjoyment into the workplace environment.

Related practices in Mexico emphasized company sponsored celebrations on special occasions like national and/or religious holidays; periodic motivational speeches made by managers or invited presenters; field trips to recreational or cultural centers; and the posting or sponsorship of educational or personal development programs provided by other agencies in other locations after work hours. One exception to this pattern was the strong desire by several plants to meet the requirements of ISO-9000 in order to qualify for exportation into international markets, particularly the European markets which initiated and closely adhere to the ISO guidelines.

Other programs of the American plants, also in descending order, were low turnover, an emphasis upon fairness, the presence of an employee assistance program, an orientation toward the needs of employee families, the completion of requirements for the ISO 9000 Certificate, and the presence of an employee wellness program.

Low turnover proved to be a remarkably consistent statistic. Most of the US companies identified their turnover rates as at or below six percent. Some were below one percent, with one claiming that 34 percent of its employees had reached perfect attendance records over an entire year. Only three plants identified turnover rates of 10 percent or higher. The Mexican plants which employed highly skilled employees also had very low turnover, while many which employed unskilled or marginally skilled workers had very high turnover, some approaching 100 percent. A number of these did fit the description of "bottom feeder", a company which pays the lowest wages possible and tolerate high turnover, or even encourage it in order to minimize employee benefits.

While all of these companies exported to other countries, most of the American ones exported a relatively limited proportion of their products, which they considered to be less important than their focus upon manufacturing and processing products for the domestic market. Most were not aggressively seeking an expansion of their international clientele, and only a limited number were making modifications to their processes or products for that market. Most responded to individual requests from international customers only as requested and only if such did not inconvenience production for their predominantly domestic markets.

By contrast, exportation by the Mexican companies ranged from less than five percent to virtually 100 percent, with most of them producing substantially more for the international than the domestic market. With few exceptions, either their primary market was international, or it was a top goal to make it so. The Mexican market was said by many directors to be relatively small and unstable and subject to uncontrolled inflation of costs.

One Mexican executive after another repeated the same mantra, that their mission was to provide a top quality product on time which met or exceeded the client's specifications. They said that the time had long past of promising products at a quality, quantity, or time frame in which they were not prepared to deliver.

Conclusions

Mexican companies carried out responsibilities for human resources in a manner directed more to short term survival or maintenance than to continuous improvement. According to comments by numerous directors, they were more focused upon finding enough employees to meet production quotas than upon increasing employee effectiveness. Few spoke about striving for an expanded or different human resource function.

The role of human resources in Mexico is often seen as encompassing employee relations and personnel accounting functions rather than implementing human resource practices. There was the appearance of a lack of connection between investment in employee skill training and increased competitiveness in many plants, based upon both interviews and observations. And Mexican companies claim that they find themselves challenged more and more by plants in China and Africa where the cost of labor is a smaller fraction of Mexican costs than Mexico's currently are of the US labor costs.

Training in the American companies emphasized human performance while in the Mexican companies it was more aligned with human relations. The former placed more resources in specific job proficiency, and the latter placed more resources in personal growth and motivational activities.

This emphasis of human resource programs upon recreational and caretaking activities more than developmental ones, and upon general more than skill based training, compromises the potential for improving worker productivity through human resource development. Examples from Mexico include a company promoting the study of English As A Second Language by employees whose work skills had not yet been assessed, and another intent upon acquiring ISO-9000 certification without having done a cost benefit analysis of such an effort. Resulting disillusionment could lead to a further reduction in, or abandonment of, more focused and cost effective investment in their people.

Plant tours and performance observations in the US generally demonstrated a psychological climate in which managers and workers communicated in a relaxed, collegial way. There appeared to be an ongoing effort to improve the processes and the products, and a collaborative approach to carrying it out. People seemed to feel valued, and to like the work and the workplace. Tours and work observation in Mexico generally demonstrated a less relaxed and more formal climate and a more paternalistic relationship between managers and workers.

Paternalism in the workplace competes insidiously with employee development and restricts its implementation. Treatment of workers as unfortunate, ignorant, or childlike does not support the value of investing in increasing their capacities to contribute to the organization.

Most Mexican company executives demonstrated a pronounced global orientation while most Americans presented themselves as relatively ethnocentric. The Mexicans embraced and were eager to expand their products for the international marketplace, while the Americans tolerated it as long as they did not have to make adaptations for it. If this attitude is widespread and persists in the American smaller manufacturing arena, it may result in an increasingly limited international market for its products.

Recommendations

Additional research should be conducted for the purpose of identifying the cultural adaptations necessary for the movement of employee training in Mexico from a human relations and personal growth focus to technical proficiency and professional development.

Additional research should be carried out to identify the cultural adaptations necessary for the movement of the human resource function in Mexico from a caretaking role to that of a facilitator of higher performance.

Additional research should be conducted for the purpose of determining whether there is relative reluctance by American smaller manufacturing plants to compete in the international marketplace and, if so, what the long term consequences may be.

Additional research should be carried out to identify the specific and differential skills needed by workers and managers from high context, as in hispanic, cultures and low context, as in anglo, cultures so that they can communicate effectively in specific international environments.

Contributions to HRD Knowledge

This research contributes to the knowledge base about the status of training and human resource practices in the small manufacturing sector in the "heartlands" of the United States and of Mexico. It identifies some of the similarities and differences in training and human resource practices between them. And it implies that HRD related adaptations may be required of practitioners on both sides of a cultural boundary.

Limitations

There were a number of limitations to the study, several based upon differences in the availability of information between the countries.

The identification of successful companies was highly problematic. In Oklahoma it was possible to locate a directory of all manufacturers in the state and to extract from it those which matched he size criteria and which exported products. Through a mailed survey, approximately 40 percent responded with information relative to specific criteria for success, and nearly 50 percent of respondents qualified. Slightly more than 75 percent of the qualifiers agreed to the interviews. By contrast in Mexico, no such organized data existed, although great efforts were expended to locate them. So the successful companies were identified purely by reputation.

True statistical sampling was not possible in either survey. In Oklahoma there was too much reliance upon a single source of identification of the population, followed by two levels of respondent self selection for participation. Respondent identification in Mexico was reputational and incidental, and access depended at times upon the acquaintanceship of a trusted third party. These are populations rather than samples.

Access to companies was more problematic in Mexico, and the availability of data within them was relatively more limited. This affected the balance of usable information between the two groups.

Participating manufacturers were limited to a single state in each country. Both Oklahoma and Puebla are traditional, conservative, and agriculturally oriented regions with attributed reputations for relatively pronounced individualism within their respective societies. (Read: "pioneer spirit" or "machismo".) At the same time, the attempt to generalize results nationally is heavily restricted by such regional variations. Neither state is typical of its entire country.

The study was limited to the perceptions of specific managers of specific smaller manufacturing companies which exported and which were located in the states of Puebla in Mexico and Oklahoma in the United States.

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The Effects of Personality, Affectivity, and Work Commitment on Motivation to Improve Work Through Learning

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This study examined the degree to which the Five Factor Model of personality, affectivity, and work commitment dimensions influenced motivation to improve work through learning. Data was obtained from private sector employees who were in-house training program participants. Findings indicated that these dispositional effects were significant antecedents of motivation to improve work through learning. Fifty-seven percent of the variance in motivation to improve work through learning was explained by positive affectivity, work commitment, and extraversion.

Keywords: Motivation, Individual Differences, Structural Equation Modeling

Individual differences such as cognitive ability, personality, orientation (values, interests, etc.), and affective disposition (i.e., mood, affect, etc.) have spawned a stream of research known as the dispositional approach. Dispositional factors influence both organizational behavior and organizational performance outcomes (Murphy, 1996). Research suggests that there are dispositional underpinnings of work values, attitudes and moods (George, 1989), indicating that job attitudes and behavior have a stable component (Staw & Ross, 1985). However, very little has been done to study dispositional traits in the context of organizational human resource development. A better understanding of these differences and their impact on workplace learning would enable learning professionals to more effectively tailor application of adult learning principles and improve performance through learning.

The purpose of this study was to develop and test a model of dispositional effects on motivation. The research model incorporated personality (Five Factor Model), affectivity (positive and negative) and work commitment as independent constructs, and motivation to improve work through learning as the dependent construct. Structural equation modeling was used to analyze the research model.

Background of the Study

Motivation To Improve Work Through Learning. Previous research efforts have focused on two types of motivation: motivation to learn or train, and motivation to transfer learning. If the primary desired outcome of organizational training programs is improvement in work outcomes, then using motivation to learn or train as the dependent variable may be too limited for organizational learning environments. The process of improving work through learning also involves willingness to transfer any knowledge acquired through such training programs to improve work processes. It is the combined motivational influences that will influence desired training outcomes.

Thus, this study utilizes an entirely new dependent construct – Motivation to Improve Work through Learning (MTIWL) (Baldwin, Ford & Naquin, 2000; Naquin & Holton, 2000). This construct posits that an individual's motivation to improve work through learning is a function of motivation to train and motivation to transfer [Motivation to Improve Work Through Learning (MTIWL) = *f*(Motivation to Train, Motivation to Transfer)]. Further, it should more completely capture the motivational influences leading to improved work outcomes from training.

Personality: The Five-Factor Model. The Five-Factor Model (FFM) suggests that there are five broad categories of traits at the top of the personality trait hierarchy: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness (Costa & McCrae, 1992). Research using this taxonomy (cf., Barrick & Mount, 1991; Hogan, 1991) indicates a consistent relationship between personality and job performance.

Less is known about the relationship between personality variables and training proficiency. Colquitt and Simmering (1998) found that personality variables explained an incremental 28% of the variance in prefeedback motivation to learn and 27% of the variance in post-feedback motivation to learn with both conscientiousness and learning orientation having significant independent relationships. Barrick and Mount's (1991) meta-analysis found that personality validly predicted training proficiency across all occupational groups studied ($r = .07 - .26$). Salgado (1997) found that agreeableness and openness were predictors for training criterion ($r = .31$ and $r = .26$,

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respectively). Barrick and Mount (1995) also found consistent correlations between conscientiousness and educational achievement, and asserted that conscientiousness is the most consistent predictor of academic achievement and job performance. Individuals rating high in conscientiousness are more likely to have positive attitudes toward learning (Barrick & Mount, 1991).

Affect: Positive and Negative Affectivity. Affectivity is an emotion-based trait dimension (Watson & Clark & Tellegen, 1988) creating a cognitive bias through which individuals approach and understand their life experiences and may affect how people experience and evaluate their jobs (Levin & Stokes, 1989). A prominent perspective of affectivity is that there are two independent dimensions: positive (PA) and negative affectivity (NA) (Costa & McRae, 1980; Diener & Emmons, 1984). PA is the tendency to experience positive emotional states and NA is the tendency to experience aversive ones (Judge, Locke, & Durham, 1997; Watson & Clark, 1984).

Individuals with higher levels of NA tend to have higher levels of nervousness and anxiety, focus more on negative aspects of themselves and the world, and dwell on their mistakes, disappointments and shortcomings (Levin & Stokes, 1989). Individuals with high levels of PA demonstrate enthusiasm and are energetic, joyous, eager, sociable, zestful, and exhilarated. According to George and Brief (1992) and Tellegen (1985), these individuals also actively seek both interpersonal relations and achievement. PA has also been found to influence an individual's responsiveness to incentives (Gouaux & Gouaux, 1971), and to enhance learning speed (Masters, Barden, & Ford, 1979).

Much of this research assumes that there is a direct causal relationship between personality traits and affectivity (Fry & Heubeck, 1998). Specifically, that neuroticism measures tend to be more strongly associated with NA and extraversion measures tend to be more strongly associated with PA (Clark & Watson, 1988; Costa & McRae, 1980; Emmons & Diener, 1985; McFatter, 1994; Meyer & Shack, 1989). An alternate theory of the relationship between personality and affectivity was proposed by Tellegen (1985) and supported by Watson and Clark (1997). Rather than hypothesizing a causal relationship, Tellegen hypothesized that they are independent and are both facets of a higher order construct, positive emotionality.

The Role of Work Commitment. The suggestion that commitment plays a key role in training motivation is not new. Facteau, Dobbins, Russell, Ladd, & Kudisch (1995) found that individuals who were committed to the values and goals of the organization had higher levels of pretraining motivation. Tannenbaum, Mathieu, Salas, & Canon-Bowers (1991) argued that "employees' organizational commitment levels are likely to predispose them to view training as more or less useful, both to themselves and to the organization" (1991, p. 760).

What is not as clear is what forms of commitment are most relevant. Morrow (1983) hypothesized that the concept consists of four distinct facets: work ethic, career commitment, organizational commitment (affective and continuance), and job involvement (Morrow, 1993). Because work commitment is likely to influence motivation in the workplace, her conceptualization of work commitment foci provided a starting point for this analysis. Based on research discussed below, work commitment is hypothesized to mediate the relationship between some of the predictor variables and motivation to improve work through learning. Three constructs of Morrow's (1993) conceptualization, work ethic, organizational commitment, and job involvement, were utilized.

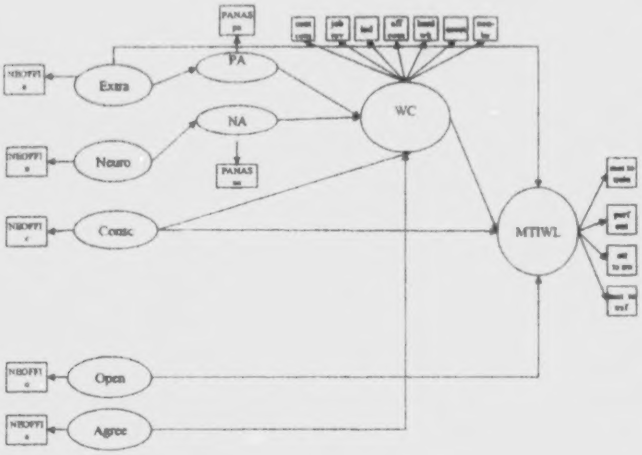
Work Ethic. The concept of work ethic has been defined for "an individual (or for a more or less homogeneous group of individuals) as a value or belief (or a set of values or beliefs) concerning the place of work in one's life. . ." (Siegel, 1983, p. 28). Merrens and Garrett (1975) found that individuals with high work ethic scores performed better and longer on tasks designed to provide low motivation and interest levels. Work ethic has also been related to achievement (Furnham 1990a, 1990b), organizational commitment (Putti, Aryee, & Liang, 1989), and job involvement (Brief & Aldag, 1977; Mayer & Schoorman, 1998).

Organizational Commitment. Morrow's 1983 work addressed the antecedents of organizational commitment and related the construct to dispositional factors and other individual differences. Morrow contended that organizational commitment "is a function of personal characteristics including individual need for achievement, which is considered a dispositional quality" (Morrow, 1983).

Job involvement. Lodahl and Kejner (1965) defined job involvement as the degree of daily absorption a worker experiences in work activity. Job involvement leads individuals to exceed the normal expectations of his or her job (Moorhead & Griffin, 1995) and is believed to be a key component in employee motivation (Lawler, 1986). Motivation for employees with lower levels of job involvement may be more extrinsic and they may have low interest in performance improvement. In contrast, the motivational factors for employees with high levels of job involvement may be more intrinsic and they may be quite interested in performance improvement. Job involvement has been found to be related to motivation and training effectiveness (Brown; 1996; Clark, 1990; Hensey, 1987).

Based on the research discussed, the research model shown in Figure 1 was developed. This figure shows the latent variables, indicator variables (discussed in the next section) and hypothesized structural relationships. It is important to note that this model does not capture all influences on motivation to improve work through learning, as only dispositional and not situational effects are excluded.

Figure 1. Dispositional Model of MTIWL With All Indicator Variables



Method

Sample. Data for this study was obtained from a nonrandom sample of 247 subjects from a single private sector health insurance organization. Listwise deletion for missing data resulted in a usable sample size of 239. Respondents were participants in a variety of in-house training programs, represented a wide range of years of work experience, and included a wide range of job levels from clerical employees to mid- and upper-level managers. The average age of the respondents was 35.5 years (range 19 - 68, SD = 10.516); 28.4% or 68 of the respondents were male and 71.6% or 171 were female.

Procedure. Surveys were administered to respondents at the beginning of in-house training programs. All participants were required to attend these classes as part of their job responsibilities. Questionnaires were presented to participants as part of the training program. Instructors were told to allow participants to withdraw if they had objections to the study, but none objected.

Instrumentation. To measure motivation to improve work through learning, scales measuring both an individual's motivation to train and motivation to transfer were necessary. Because it is desirable to have at least three indicators for latent constructs, four scales were selected to measure the motivation to improve work through learning construct. The START instrument serves multiple purposes (Wienstein et al., 1994) and is comprised of eight 7-item scales. Two scales were selected: training attitudes and the motivation to train scale. In this study, coefficient alpha reliabilities were .70 for both scales. The LTSI (Holton et al., 2000), a 68-item instrument, measures factors affecting learning transfer including motivation. The motivation to transfer scale (α = .83) and performance outcomes expectations (α = .83) scale were selected. Drawing on expectancy theory, the second scale was selected to include an outcome component of improving work through motivation. In this study, coefficient alpha reliabilities were .85 for motivation to transfer and .78 for performance outcome expectations.

The NEO Five-Factor Inventory (NEO-FFI), a 60-item measure of personality developed by Costa and McCrae (1992), was used to measure personality dimensions. In this analysis, NEO-FFI raw scores were converted to t-score values using gender-based national norms determined by Costa and McCrae (1991). Internal reliabilities for the NEO-FFI have been reported as .86, .77, .73, .68, and .81 for neuroticism, extraversion, openness, agreeableness, and conscientiousness, respectively (Costa & McCrae, 1991).

The most widely used measure of PA and NA is the Positive and Negative Affectivity Schedule (PANAS) (Watson, Clark, & Tellegen, 1988). Subjects are instructed to rate PA and NA according to their "general" or "average" feelings to assess trait affectivity instead of state affectivity. Watson et al. (1988) reported internal consistency reliabilities for PA as .87 and for NA as .88.

Blau and Ryan (1997) conducted exploratory factor analyses to identify dimensions of the work ethic construct and revealed a four-dimension construct: hard work, nonleisure, asceticism, and independence measured by an 18-item secular work ethic instrument. Because it appeared to contain the most valid items empirically derived from seven different instruments, it was selected for use in this study. In this study, coefficient alpha reliabilities were: hardwork (.78), nonleisure (.85), asceticism (.80), independence (.73).

Kanungo (1982) proposed a job involvement measure consisting of 10 items that he felt were more representative of the psychological conceptualization of job involvement (Blau, 1985b). Items included in the Kanungo instrument were derived from Lodahl and Kejner (1965) but it is psychometrically stronger than the other scales (Blau, 1997) so it was selected for this study. Coefficient alpha reliability was .71.

Because of its multidimensional structure, the Allen and Meyer (1990) instrument is increasingly being used to measure organizational commitment. This instrument consists of three eight-item scales: affective, continuance, and normative commitment. In this study, coefficient alpha reliabilities were .84 for affective commitment and .81 for continuance commitment.

Analysis. A structural equation modeling analysis was conducted with LISREL 8.3 (Joreskog & Sorbom, 1996) to test the causal relationships between variables in the hypothesized model. Input for estimation of the model was provided by a covariance matrix prepared with PRELIS 2.3. Data analysis was conducted in two stages in accordance with a procedure suggested by Anderson and Gerbing (1988) and Hair, Anderson, Tatham, and Black (1998). In the first stage, the adequacy of the measurement model was examined. The initial analyses evaluated the loading of individual items on instrument scales. Scale scores were then calculated and used as indicators for the latent constructs. A second analysis was conducted to evaluate the fit of the measurement model comprised of the scale scores and latent constructs.

Because the NEO and PANAS scales are so well established in the literature, these scales were not included in this stage of analysis. Each of these scales was treated as a single indicator for a corresponding latent construct. As is common practice with single indicators, the error variance was set to 1 minus the reliability of the scale times the variance of the scale (Hair et al., 1998). For the NEO-FFI, the variance and reliability were obtained from the technical manual (Costa & McRae, 1992) while the values used for the PANAS were calculated from this sample.

The second step of the analysis required assessment of the structural model describing the relationships among the latent constructs (Anderson & Gerbing, 1988). Just like the evaluation process for the measurement model, structural model assessment involves examination of multiple fit indices. In addition, parameter estimates for each path and their statistical significance were examined as part of this stage.

It is increasingly common for researchers to develop and evaluate alternative models rather than simply examining the absolute fit of the hypothesized model. Thus, at each step of the analysis the model was carefully examined for possible modifications as well as overall fit. Each change suggested by weak factor loadings, non-significant paths, or modification indices was carefully evaluated for alternative theoretical support.

Results

Measurement Model Analysis. The first stage of the measurement model analysis was to examine the loadings of instrument items on each scale except for the NEO-FFI and the PANAS. For space reasons this step will not be discussed in detail but full details are available from the authors. Briefly, confirmatory factor analyses of scales led to deletion of only a few instrument items. Resulting fit measures were considered adequate. Scale scores were then calculated using the slightly revised scales.

The second stage was to test the loading of the scales on the designated latent constructs. In this model, there were two constructs with multiple indicators: work commitment and motivation to improve work through learning. The initial fit for the model (see Figure 1) was not as strong as desired ($\chi^2_{(106)} = 330.22$, GFI = .87; AGFI = .78; NFI = .76; RMSEA = .094; SRMR = .078; CFI = .82). Two scales had low loadings on work commitment (independence = .32 and continuance commitment = -.31). Both scales were eliminated, which improved the fit somewhat ($\chi^2_{(75)} = 226.42$, GFI = .89; AGFI = .81; NFI = .82; RMSEA = .092; SRMR = .069; CFI = .86).

In an effort to improve the fit even further, it was decided to evaluate the results of eliminating additional indicators. Two remaining indicators were candidates: non-leisure and asceticism. Asceticism was eliminated first because it was the lowest loading followed by non-leisure. The best fit came from elimination of both these scales ($\chi^2_{(48)} = 125.90$, GFI = .93; AGFI = .85; NFI = .88; RMSEA = .083; SRMR = .054; CFI = .92) and all loadings were above .50.

Thus, in the final measurement model four indicator variables were retained for the dependent construct motivation to improve work through learning and three were retained for work commitment. Only the hard work sub-scale was retained from the work ethic instrument. Work commitment thus had three indicators: affective commitment, job involvement, and hard work.

Structural Model Analysis. The fit for the initial structural model (see Figure 1) was not as strong as desired ($\chi^2_{(63)}$ = 205.78, GFI = .89; AGFI = .82; NFI = .80; RMSEA = .098; SRMR = .079; CFI = .85). Several paths were also non-significant (+ < 1.96) including: from openness to motivation to improve work through learning (t = -.39); from agreeableness to motivation to improve work through learning (t = -.57); from agreeableness to work commitment attitudes (t = 1.33); and, NA to work commitment attitudes (t = 1.11). In addition, a negative error variance was detected. Thus, modifications to the model were deemed appropriate.

These changes yielded an improved fit, though it was still not as strong as desired ($\chi^2_{(38)}$ 121.43, GFI = .92, AGFI = .85, NFI = .86, RMSEA = .096, SRMR = .067, CFI = .90) and an offending estimate in the form of a negative error variance was still present. The decision was made to eliminate the path from conscientiousness to motivation to improve work through learning because: a) this path was not significant (t-value = -.40) and, b) there was a path from conscientiousness to work commitment attitudes so the conscientiousness construct would not be eliminated from the model.

Dropping the path from conscientiousness to motivation to improve work through learning eliminated the negative error variance and slightly modified the fit ($\chi^2_{(39)}$ 130.79, GFI = .91, AGFI = .85, NFI = .84, RMSEA = .099, SRMR = .074, CFI = .88). However, the fit was still not as strong as desired so theory was examined in an attempt to establish a basis for assessing an alternate model.

Alternate Structural Model. The alternate model examined involved relocating the PA path from an endogenous construct mediating the relationship between extraversion and work commitment to an exogenous construct directly influencing motivation. This was supported both by statistical evidence (largest modification index = 35.37) and theoretical support from alternate theory.

The paths involving extraversion, neuroticism and affectivity hypothesized in the original model were based on the theoretical assertions of Costa and McCrae (1980, 1991). They viewed PA as being directly caused by extraversion and NA caused by neuroticism. However, in this sample the correlation between extraversion and PA was only .47, and only .48 between neuroticism and NA. Furthermore, the correlation between PA and neuroticism (r = .40) and between PA and conscientiousness (r = .46) were of similar magnitude as PA's correlation with extraversion. Thus, while these correlations clearly indicated an association between the constructs, they also suggested that PA might be a separate construct that was associated with, but not caused by extraversion. This is consistent with the theoretical assertions made by Tellegen (1985) and Watson and Clark (1997) discussed earlier.

Thus, the path from extraversion to PA and the path from PA to work commitment were removed, and one path -- from PA to motivation -- was added. Analysis of this model indicated improved fit ($\chi^2_{(37)}$ 82.86, GFI = .94, AGFI = .89, NFI = .89, RMSEA = .072, SRMR = .064, CFI = .94). Comparison of the measures for comparing competing models also indicated that this was the best fitting model, with all values being lowest for this model.

Figure 2 shows the final path model with standardized path coefficients. Parameter estimates indicated that all but one path was statistically significant. T-values ranged from 1.57 to 4.57. While the path from extraversion to motivation to improve work through learning was not statistically significant (t = 1.34), it was retained in the model because of prior research findings indicating its importance (Barrick and Mount, 1991). The remaining five paths were statistically significant (>1.96).

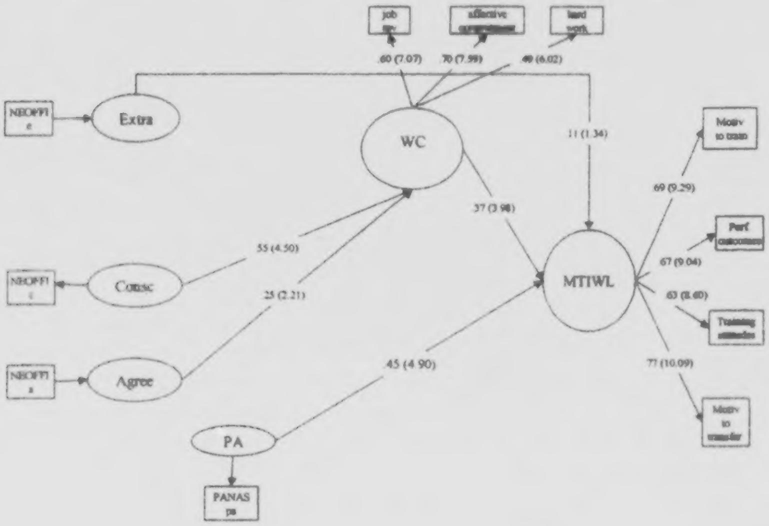
Conscientiousness and agreeableness explained 50% of the variance in work commitment. And, work commitment, extraversion and PA explained 57% of the variance in the dependent construct, motivation to improve work through learning. The standardized coefficients for the total effects on motivation to improve work through learning shows that PA had the strongest influence (β = .45) while conscientiousness had the second strongest influence (β = .20) even though it occurred indirectly through work commitment. Extraversion (β = .11) and agreeableness (β = .09) had smaller effects, with agreeableness also operating through work commitment.

Discussion

Four of the dispositional traits assessed in this study were found to be antecedents of MTIWL -- two directly and two indirectly through work commitment. Extraversion and PA directly and positively influenced MTIWL, while the effects of conscientiousness and agreeableness were mediated by work commitment which positively influenced the dependent construct. More specifically, 57% of the variance in MTIWL was explained by PA, work commitment, and extraversion. Fifty percent of the variance in the mediator construct, work commitment, was explained by conscientiousness and agreeableness. This indicates that these dispositional effects are, in fact, important considerations in predicting motivation to improve work through learning.

The significance of the path from PA to MTIWL, the strongest path found in this study, supports previous research (George and Brief, 1992; McFatter, 1994). High PA individuals may be more optimistic about training and

Figure 2. Final Model with Standardized Path Coefficients and t-values



have a stronger belief in their ability to successfully complete training. They may also have more confidence in their ability to improve work situations as a result of the knowledge and skills acquired through training.

Conscientiousness was the second strongest predictor, mediated by work commitment. Findings regarding conscientiousness are consistent with previous research that suggests a relationship between this personality dimension and work commitment. Conscientiousness, according to Costa and McCrae (1991), is comprised of facets such as competence, order, dutifulness, achievement striving, self-discipline, and deliberation. These descriptors are similar to those of the work ethic component of work commitment which include an orientation toward hard work and achievement, dependability, and persistence (Weber, 1958). These findings also support conscientiousness studies that are more closely related to training/learning and motivation (Barrick & Mount, 1991; Colquitt & Simmering, 1998; Digman & Takemoto-Chock, 1981; Mathieu & Martineau, 1997; Smith, 1967; Takemoto, 1979) .

The two other predictors had weaker effects. Extraversion was slightly greater than agreeableness but further research is needed to determine if it is, in fact, a significant predictor. Logically, it would seem to be because extraverts, somewhat like individuals with high levels of PA, tend to be optimistic, energetic, enthusiastic, and actively seek both interpersonal relations and achievement (George & Brief, 1992). The weakest predictor in the model was agreeableness. However, the relationship between agreeableness and work commitment found in this study provides new information regarding this personality dimension because no other studies were located that directly tested this relationship.

Somewhat unexpectedly, openness to experience was not a significant predictor of the dependent variable, nor did it significantly influence work commitment. In some ways, this contradicts previous research. For instance, Barrick and Mount (1991) found openness correlated with training proficiency (r = .25). Others (Driskell et al., 1994; Gough, 1987; McCrae, Costa & Piedmont, 1992; Salgado, 1998) have also found a positive relationship between openness to experience and learning. One explanation may lie in the fact that the MTIWL construct included a transfer and performance outcome component, unlike the more frequently assessed motivation to learn construct. Had the dependent variable been more learning oriented (i.e., learning for the sake of learning) as opposed to being outcome oriented (i.e., geared toward the application of the training knowledge and skills attained), openness to experience might have remained in the model.

The finding that neuroticism and NA were not related to MTIWL is somewhat surprising. While there was limited research directly linking these constructs to training, the characteristics of individuals scoring high on these scales would seem to suggest that they would influence motivation.

MTIWL, the dependent construct, is a new construct devised to assess an individual's motivation to train *and* motivation to transfer knowledge or skills acquired through training initiatives to work settings. This is the first known use of this construct. Confirmatory factor analysis showed that the four scales selected loaded on this latent construct.. The squared multiple correlations for all scales were good (motivation to transfer = .60; motivation to train = .48; performance outcome expectations = .45; attitudes toward training = .40). Each of the separate scales selected had evidence of initial content construct validity from pervious studies.

These findings suggest that each individual has a dispositionally affected motivational profile for improving work through learning based on four factors – PA, conscientiousness, extraversion, and agreeableness. As such, organizations must be prepared to respond to the motivational forces within current and potential employees. Because dispositional tendencies tend to remain stable throughout an individual's working career, knowledge of an employee's dispositional motivation profile may enable employers to make better predictions regarding work behaviors. The large contribution of these dispositional characteristics in predicting motivation to improve work through learning suggests that HRD professionals should more closely attend to the motivational levels of employees who score low on these personality dimensions. Interventions should be developed and implemented to heighten pre-training motivation for these individuals.

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The Relationship between Work Environment and Employees' Self-Directed Learning Readiness in Korean Companies

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To investigate the relationship between work environment and employees' self-directed learning readiness (SDLR) in Korean companies, this study analyzed whether or not employees' perception of their work environment and SDLRS are different according to the company where they belong; examined which of work environment factors are related to SDLR. Consequently, employees showed statistically significantly different perception of all environment factors and SDLR and teamwork and taking risks/ innovation statistically significantly explained their SDLR.

Keywords: Self-Directed Learning, Self-Directed Learning Readiness, Work Environment

Society is rapidly changing and so are the necessary knowledge, skills, and aptitude in order to cope with change. Carnevale, Gainer, and Meltzer (1990) presented the basic skills which employees should have in order to survive in the environment as following: (1) learning how to learn; (2) basic competency skills like reading, writing and computation; (3) communication skills, that is, speaking and listening effectively; (4) adaptability skills to creatively think and solve problems; (5) developmental skills managing personal and professional growth; (6) group effectiveness skills; and (7) influencing skills. Among these skills, he cited, learning how to learn would be the foundation of other skills. Besides learning how to learn, many other terminologies implicate similar meaning, such as self-planned learning, self-directed learning, self-aware learning and self-paced learning. Among them, self-directed learning has been extensively used to describe the form of study to be initiated by learners (Caffarella and O'Donnell, 1987) and self-directed learning readiness has been used to measure to what extent an individual has skills and attitude related to self-directed learning (Guglielmino, 1977).

Having become mature and having accumulated their own experience, adults have been changed into self-directed human beings (Knowles, 1980). As learners, therefore, adults come to participate in learning activities by their own choice and intend to learn self-directedly from their various experiences (Knowles, 1975). Most employees in organization are adults. Therefore, they have and should have the characteristics of a self-directed learner. According to previous research (Guglielmino, Guglielmino, & Long, 1987; Guglielmino & Klatt, 1994), employees' self-directed learning readiness is related to job performance. The higher the degree of self-directed learning readiness, the better job performance and vice versa. Hence, an organization needs employees having higher self-directed learning readiness and should encourage them to improve it.

A person's characteristics are inherent in nature to some extent, but also affected by his/ her own experience and environment surrounding him/ her (Lewin, 1951). Adult learners' self-directed learning readiness is one of the personal characteristics and can be improved or damaged by the environment surrounding an individual (Young, 1986; East, 1986; Yoo, 1997). Work environment is one of the most influential environments around employees and closely related to employees' self-directed learning readiness, furthermore to job performance (Litwin & Taiguri, 1968; Robert, 1986). Identifying which of work environment factors are related to employees' self-directed learning readiness, therefore, is meaningful for a company which aims to improve individuals' job performance and ultimately organizational performance.

Accordingly, this study aims to investigate empirically the relationship between work environment and employees' self-directed learning readiness. For this purpose, this study will analyze whether or not employees' perception of their work environment and self-directed learning readiness are different according to the company to which they belong; examine to which of work environment factors are related to self-directed learning readiness and to what extent the factors explain it.

Theoretical Framework

Self-Directed Learning and Self-Directed Learning Readiness

Self-directed learning has been slightly differently defined by whether it is regarded as a learning process/

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method, as a training program, or as a personal characteristic. Focusing on a learning process, Knowles (1975) defined it as a process that an individual has the initiative for planning learning experience, finding learning resources and evaluating the result. Piskurich (1993) specified self-directed learning as the concept of a training program in which learners can master learning materials at their own pace. The concept regarding it as a personal characteristic is Yoo's (1997). She defined self-directed learning as an adult learner's capability to set up his/ her own learning goal, perform and evaluate it, and find a learning opportunity by himself/ herself. Embracing these diverse concepts, Long (1996) differentiated two concepts of self-directed learning, that is, a comprehensive concept and a narrow concept. The former is to include the concepts of learning process, learning method and learner's characteristic. On the contrary, the latter is to focus on one concept among them. Also, he clarified the meaning of self-directed learning by comparing two concepts of self-directed learning and other-directed learning. That is to say, self-directed learning are relatively independent and intrinsically motivated, values self-initiative, has positive self-efficacy, engages in deep processing and prioritizes mental focus while other-directed learning are relatively dependent, and extrinsically motivate, values following directions, has limited self-efficacy, and engages in surface processing.

However, it should be kept in mind that self-directed learning does not mean isolated learning activities from environment surrounding learners. Self-directed learning means neither an isolated learning in the library, at home, or in the office, nor distant learning. It should be understood that an individual finds his/her own learning need, looks for proper learning resources, manages the learning process and evaluates the results without regard to place or distance (Candy, 1991).

Self-directed learning readiness is the degree that an individual has readiness for self-directed learning and is a measurable concept. Self-directed learning is occurred by a learner having self-directed learning readiness. A learner has relatively higher self-directed learning readiness but another has relatively lower one. Although adults have a different level of self-directed learning readiness, it is not fixed and can be improved by an interaction of an individual and the environment (Yoo, 1997). In other words, the level of self-directed learning readiness is determined by how well the environment encourages and assists their self-directed learning efforts and consequently how self-directed learning readiness can be improved by environmental conditions becomes a crucial topic.

The most frequently used instrument to measure readiness for self-directed learning is Guglielmino (1977)'s Self-Directed Learning Readiness Scale (SDLRS). Field (1989) gave rise to questions about validity, reliability, structure of SDLRS, and Oddi (1986) and Straka, Nenniger, Spevacek, and Wosnitza (1996) created alternative instruments of SDLRS, Oddi Continuing Learning Inventory (OCLI) and Motivated Self-Directed Learning Questionnaire for Schools and Companies (MSDLQ-S-C) respectively. However, the researcher judged that SDLRS, especially the Korean version of SDLRS, is proper for the purpose of this study because OCLI has been criticized in that it is not differentiated from SDLRS and MSDLQ-S-C needs to be validated in more various culture and nations. Furthermore, overall the validity studies on SDLRS showed a positive relationship between SDLRS score and observable indicators of self-directed learning (Guglielmino & Guglielmino, 1991). Accordingly, this study is based on SDLRS.

Employees' Self-Directed Learning Readiness in Companies and Work Environment

The concept of self-directed learning related to a company is gaining attention. Technology utilized in the business is changing day by day, characteristics of people composing a company are varied, and the business is operated in various countries. Adapting to these changes and diversity needs various skills: learning new technology; adapting to people's differences; and dealing deal with customer or stakeholders from other countries. Education to provide these skills and make employees adjust to new environment is indispensable for a survival of companies. While educational needs in a company are growing, however, educational budgets and resources are limited. Accordingly, self-directed learning readiness, the ability that people can learn and solve problems by themselves, is becoming more and more of a concern for companies (Foucher and Tremblay, 1993) and not a few studies to explore the relationship between self-directed learning readiness and organization or performance has been conducted (Piskurich, 1994).

Especially researchers has concerned with identifying factors affecting self-directed learning readiness and work environment has been considered as a major one of those factors. According to Lewin (1951), all human activities are affected by society and the environment and are social products, so is human learning. Therefore, characteristics of the organization and society to which an individual belongs should be considered in order to understand the individual's behavior and work environment is one of the most influential environments around employees. In this vain, it is important to explore the relationship between self-directed learning readiness and work environment.

A few research have been explored the relationship, especially GIRAT (Group for Interdisciplinary Research on Autonomy and Training) explored environmental factors of self-directed learning through experts' in-depth discussion (Baskett, 1993). These factors were confirmed and validated by multi-stage research like workshop, participative study, evaluation and in-depth discussion. As a result, 42 provocative propositions for self-directed learning in organizations were generated and these propositions were further classified into 10 categories: continuous improvement; involving individuals; taking personal responsibility; harmonious values; leadership setting an example; valuing differences; communication; taking risks; teamwork; and innovation. The study demonstrated the importance of the relationship between organizational environment and self-directed learning. Although these factors were determined by in-depth discussion with experts, they were not examined empirically.

As mentioned above, the importance of the relationship between work environment and employees' self-directed learning has been addressed in much research, but empirical studies were only a few. This study, therefore, will investigate the relationship between employees' self-directed learning readiness and work environment, particularly along the ten environmental factors created by GIRAT.

Research Questions

The following three questions have been developed to address the areas stated in the purpose statement and investigate the theoretical framework

1) Is the degree of employees' perception of work environment different according to the company to which they belong?
2) Is the degree of employees' self-directed learning readiness different according to the company to which they belong?
3) Which factors of work environment factors are related to employees' self-directed learning readiness?

Methodology

Population and Sample

The target population of this study is employees in Korean private companies, and the sample is 414 employees who have worked for at least two years in the company to which they belong at that time. The sample was selected by two steps: choosing companies and then selecting employees within each company. Selection of companies was based on the international standard classification of occupations (ILO, 1988). According to the standard, there are ten major occupation groups of legislators, senior officials and managers, professionals, technicians and associate professionals, clerks, service workers and shop and market sales workers, skilled agricultural and fishery workers, craft and related trades workers, plant and machine operators and assemblers, elementary occupations, and armed forces occupations. Except for agricultural and fishery workers, plant and machine operators and assemblers, and armed forces, seven companies representing seven major groups were selected. The three groups were excluded because of the difficulty of sampling. To select employees within a company, proportional stratified sampling[1] considering a position was used. To be more specific, males were 341 (82.4%) and 30 to 34 years were the most (178, 42.9%). In academic career, people graduating university were the most (318, 76.8%) and 285 (68.8%) got married. Job position was the order of Junior managers (197, 47.6%), Employees (118, 28.5%), Middle managers (70, 16.9%), and Senior managers (28, 6.8%). Executives or CEOs were excluded because they were hard to survey and there were only a few existed in each company. The sample was limited to employees who had worked for at least two years, because some working period within one company was presumed to be needed in order to perceive and evaluate work environment.

Table 1. The Number of Subjects in Each Company

	A	B	C	D	E	F	G	Total
Freq (%)	67 (16.2)	44 (10.6)	69 (16.7)	64 (15.5)	59 (14.3)	63 (15.2)	48 (11.6)	414 (100.0)

Instrumentation

The survey questionnaire was made up of four related parts: self-directed learning readiness, work environment, demographic variables and job stability. The last two parts were measured for multiple regression analysis. Gender, age, academic career, marital status, and job position constituted demographic variables and aptitude to his/her company and prospects for his/her job made up of job stability.

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[1] Proportional stratified sampling means the proportion of each group in the sample is the same as their proportion in the population (Gall, Borg, & Gall, 1996). The reason for using this sampling is to represent the demographic characteristics of the population.

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(1) Self-Directed Learning Readiness: SDLR-K-96 (Kim & Kim, 1996), the Korean version of Guglielmino's self-directed learning readiness (1977), was used. 18 items were removed from the original SDLRS through repeated factor analysis. Hence, SDLR-K-96 consisted of 39 items and the reliability was cronbach'α = .91.

(2) Work Environment: GIRAT (Group for Interdisciplinary Research on Autonomy and Training) developed 42 propositions divided into ten categories affecting self-directed learning (Baskett, 1993). In this study, these propositions were converted to a four point Likert-type scale. Among 10 categories, two categories were excluded because all propositions in those categories were overlapped with other categories, and two categories having similar concepts were merged. Reviewed by a professor and colleague, 30 items of 6 factors from GIRAT's were selected. The reliability of these items was cronbach'α = .89.

Data Collection and Analysis

Data were collected by the researcher with the assistance of the training department of each company during two weeks. In four companies, the survey was conducted during training sessions and the others sent it to sample with a formal letter issued by the training department. The questionnaires were distributed to 500 employees and 451 out of 500 responded. Excluding responses which included insufficient data, consequently 414 responses were analyzed (the response rate = 82.8%).

The data were analyzed through the following procedures.

First, factor analysis was used to extract work environment factors related to self-directed learning readiness. The factor score was calculated by the regression method because it is used extensively (Lee, 1995) and factors were rotated by the varimax method in order to prevent multicollinearity because the factor scores should be used in multiple regression analysis (Chae, 1992). The five factors of which the eigen value were over 1.0, the factor loading was over .5 and were bound by more than 3 items were obtained through the scree test which is used to identify the optimum numbers of factors (Hair, Anderson, Taitham, & Black, 1995).

Second, analysis of variance was used to identify the difference of the perceived work environment and self-directed learning readiness among companies. The summation of each item score within each factor was used as the value of each work environmental factor.

Third, hierarchical multiple regression analysis was employed to identify to what extent work environment factors affected employees' self-directed learning readiness. Work environment, demographic variables, and job stability were entered in sequence. Dummy coding was used for seven variables, such as gender, academic career, marital status, position, the aptitude to their present job, and prospects for occupation.

Results and findings

Environment Factors

As a result of factor analysis using the varimax rotation method, seven factors were extracted. Repeated factor analysis, excluding items of which factor loading was under .05 and which was not bound by at least three items, extracted five factors. These factors explained 55.9% of the total variance of work environment. The first factor was made of six items and explained 29.1% of the variance of work environment. The eigen value of this factor was 5.81. These items were categorized into "valuing individual differences." The second factor extracted was "teamwork." The eigen value and variance explained by this factor were 1.77 and 8.9% respectively. The third factor was made of 3 items and its eigen value and variance explained were 1.36 and 6.8% respectively. This factor was called "involving individuals." The fourth factor, called "taking risks/innovation", was made of 4 items and its eigen value and variance explained were 1.24 and 6.2%. The last factor consisted of 3 items. Its eigen value was 1.00 and the variance explained by this factor was 5.0%. This factor was called "taking personal responsibility." Because the reliability of this factor was only .19[2], this factor was excluded in the further analysis.

Differences of Work Environment

An analysis of variance revealed differences among employees' perceived degree of all work environment factors in seven companies (Table 2). In other words, employees who belong to different company perceived differently the degree that the company values individual differences, the degree that people work well together, the degree that the company encourage challenge and change, and the degree that individuals are encouraged to be involved in organizational decision making. Their differences were statistically significant under a .001 significance level.

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[2] The reliability of each factor should be above .5 in order to use in the further analysis (Lee, 1995).

Table 2. The Differences of Work Environmental Factor Between Companies

Variables		Sources	df	SS	MS	F
ENVIRONMENT	Valuing Individual Differences	Between	6	669.6223	111.6037	13.5557***
		Within	407	3350.8125	8.2330	
		Total	413	4020.4348		
	Teamwork	Between	6	134.8482	22.4747	5.6222***
		Within	407	1626.9779	3.9975	
		Total	413	1761.8261		
	Involving Individuals	Between	6	79.6179	13.2696	5.4454***
		Within	407	991.7952	2.4368	
		Total	413	1071.4130		
	Taking risks /Innovation	Between	6	243.7958	40.6326	12.3901***
		Within	407	1331.4488	3.2794	
		Total	413	1575.2446		

*** $p < .001$

Differences of Employees' Self-directed Learning Readiness

An analysis of variance revealed differences among employees' self-directed learning readiness in seven companies (Table 3). In other words, it could be said that employees who belonged to companies having different work environments had different self-directed learning readiness. Their differences were statistically significant under a .001 significance level.

Table 3. The Differences of Self-Directed Learning Readiness Between Companies

Sources	df	Sum of Squares	Mean Squares	F
Between	6	15227.1563	2537.8594	5.3575***
Within	407	192797.6480	473.7043	
Total	413	208024.8043		

***$p < .001$

The Relationship between Work Environment and Employees' Self-directed Learning Readiness

The final purpose of this study was to identify which of work environment factors are related to employee's self-directed learning readiness. To begin with, simple correlation analysis was employed in order to determine whether employees' self-directed learning readiness is related to work environment. Because work environment factors were extracted by the varimax rotation method assuming that the correlation among factors was zero, the concern was put on the correlation between work environment and self-directed learning readiness. It revealed valuing individual differences was statistically significantly related to self-directed learning under a .01 significance level; teamwork and taking risks were under a .001 significance level.

Based on the preceding correlational analysis, further multiple regression analysis was conducted. According to the previous studies, not only environmental factors but also demographic variables and socio-psychological variable are related to self-directed learning readiness. Therefore, all these variables should be considered in the multiple regression analysis[3].

This study employed hierarchical multiple regression analysis entering variable clusters in the sequence of work environment factors, demographic variables, and job stability variables. In the first step, the effects of work environment factors were analyzed, and in the next two steps, incremental influences of demographic variables and job stability variables respectively were analyzed. The result of hierarchical multiple regression analysis is presented in Table 4.

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[3] In the multiple regression analysis, omission of relevant variables causes specification error and results in the wrong model and irrelevant conclusion (Pedhauzur, 1997).

In the first regression model, three work environment factors except for 'involving individuals' were statistically significant and explained 11.94% of the total variance of self-directed learning readiness. The second model adding demographic variables explained 16.11% of the total variance, and 4.18% of explained variance was incremented in this step. Lastly, job stability variables were added. Among added job stability variables, prospects for the job were statistically significant. The β change of the valuing individual differences factor was noteworthy. The β of valuing individual differences were reduced from .1140 to .0500 and the factor has been changed from a statistically significant to an insignificant variable. This result can be interpreted as that the valuing individual differences factor and the prospects for their job were correlated. That is, the more a company esteems individual differences, people think that their job will be more promising. As a final result of hierarchical multiple regression analysis, all variables explained 20.76% of the total variance of self-directed learning readiness and incremented variance in the third step was 4.56%.

Table 4. Hierarchical Multiple Regression Analysis

	Variables	Step 1	Step 2	Step 3
Work Environment	Valuing Differences	.1362** (2.925)	.1140* (2.411)	.0500 (1.028)
	Teamwork	.2342*** (5.028)	.2131*** (4.532)	.2074*** (4.483)
	Involving Individuals	.0410 (.880)	.0479 (1.021)	.0049 (.106)
	Taking risks/Innovation	.2105*** (4.519)	.1790*** (3.771)	.1664*** (3.542)
Demographic Variable	Gender		-.0556 (-.929)	-.0775 (-1.321)
	Age		.0863 (.765)	.1094 (.984)
	Degree (High School)		—	—
	Degree (Undergraduate)		-.0001 (-.002)	-.0029 (-.052)
	Degree (Graduate)		.1779** (3.006)	.1948*** (3.371)
	Position (Employee)		—	—
	Position (Junior Manager)		.1591 (1.879)	.1735* (2.099)
	Position (Middle Manager)		.0191 (.189)	.0096 (.097)
	Position (Senior Manager)		-.0231 (-.228)	-.0280 (-.282)
	Marital Status		-.0725 (-1.150)	-.0720 (-1.169)
Job Stability	Aptitude toward company			.0039 (.070)
	Prospects for work			.1809*** (3.535)
	R^2	.11938	.16113	.20763
	Adjusted R^2	.11070	.13729	.18056

*** $p < .001$, ** $p < .01$, * $p < .05$

Conclusions and Recommendations

This research found that employees' academic career and job position statistically significantly explained their self-directed learning readiness and people had more autonomous learning needs when they did not think their job had bright prospects. In the case of work environment factors, teamwork and taking risks/ innovation were significant variables. That is to say, it can be concluded that when employees perceive that their company encourages them to change and innovate and they belong to a collaborative and reliable organization, those perceptions affects their self-directed learning readiness.

Cost and time needed for in-class training are a burden on almost companies. For this reason, many companies are concerned about cyber training and distance learning which do not require significant money and time to assemble. To utilize these learning methods, however, adult learners who can diagnose their own learning needs, find and use appropriate learning resources, determine the effort and time to be allocated to learning, and evaluate the results by themselves, that is, people who has readiness for self-directed learning are essential. Therefore, organizational efforts to encourage employees to improve their self-directed learning readiness; and to provide various supports and specific programs and methods which can improve employees' self-directed learning readiness should be studied more extensively.

This research was conducted in seven Korean companies. These companies were selected by the occupational classification of ILO, yet geographic region/ location or size of companies were not considered. Therefore, the findings can be hardly generalized to all employees of all kinds of Korean companies. An additional limitation of this study is that work environment factors were limited to subjective factors based on employees' perception, although it is based on the premise that employees' perceptions for work environment affects their behavior rather than objective characteristics of an organization are more significantly. The perceived environment may be incongruous with the actual work environment. Finally, this study used SDLRS to measure readiness for self-directed learning and assumed that the readiness is close to self-directed learning. However, the use of SDLRS is one of four themes which it is hard to obtain consensus among experts (Confessore & Confessore, 1993).

Based on these limitations, further research should be conducted in more diverse companies considering regions and size in order to generalize the results to a variety of companies. Also, not only the perceived work environment but also the objective work environment should be considered in order to analyze work environment factors affecting self-directed learning readiness more extensively. Lastly, specific methods to improve self-directed learning readiness should be investigated.

How this research contributes to new knowledge in HRD

Self-directed learning and the readiness are topics which have been concerned for a long time and have been studied extensively. Because of the potentiality which self-directed learning and the readiness could lessen the cost and time related to training, and the expectation which it would be closely related to employs job performance, self-directed learning has been gaining more attention in HRD field. Up to now, several research on the relationship between self-directed learning readiness and workplace has been conducted in U.S., but few research has been conducted in Korea in spite of the importance. Korea has been confronted with economic crisis for the last few years and is struggling to get out of it. Under the circumstance, investment and budget for training and development have been slashed, but ironically the importance of developing and improving employees' capability and skills to survive have been increased. In this vain, self-directed learners who can learn and find learning resources by themselves are getting attention by Korean companies and this research is meaningful in that it investigated the relationship between self-directed learning readiness and work environment in Korean.

Additionally, the result of this study can be compared with that of other study being conducted in different countries and various work settings. This comparative study will provide the idea about similarity and dissimilarity of workplaces of various countries and be helpful to internationally understand the relationship between self-directed learning readiness and work environment. This study is the first step toward further extensive study.

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Predicting Motivation to Learn and Motivation to Transfer in a Service Organization

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This exploratory study attempted to identify key predictors of motivation to learn and motivation to transfer as well as examine the relationship between the two variables. Organizational commitment, task cues, and coworker commitment to quality work were found to be the strongest predictors of motivation to learn. Motivation to learn, motivating job, and being expected to use the newly learned skills and knowledge were found to be the most important predictors of motivation to transfer.

Keywords: Motivation to Learn, Motivation to Transfer, Training Effectiveness

In today's rapidly changing and very turbulent environments organizations find themselves always scrambling for competitive advantage. Following the Toyota approach to lean enterprise, today's organizations are also striving to do more with less. Even many of the world's largest and traditionally successful companies have been forced to end their commitment to employment security and announce major cuts in their workforces (Finegold, 1998). At the same time though, organizations realize that to be successful and competitive they must continuously improve the way they organize and manage themselves. "How organizations are structured, how people are paid, how performance is measured, how individuals are trained and developed: increasingly, these are proving to be areas in which successful innovation can lead to improved performance and to sustainable competitive advantage" (Galbraith & Lawler, 1998; p. 1).

In this modern era of lean enterprise human resource development has received renewed interest. Organizations know that without having a highly skilled, committed, and motivated workforce their ability to compete and innovate is significantly handicapped. Thus, they invest a significant amount of their resources on employee development and training. In the U.S. alone, over $210 billion is invested annually on workplace training (Ford, Kozlowski, Kraiger, Salas, & Teachout, 1997). The only difference is that nowadays training investments are more and more strategically tied to the core competencies of the organization, scrutinized, and are increasingly expected to contribute to the organization's bottom line performance. But do corporations receive a good return on their training investments?

Some estimates indicate that only about 10% of the training related expenditures actually result in transfer of newly learned skills and knowledge back to the job (Baldwin & Ford, 1988; Broad & Newstrom, 1992; Facteau, Dobbins, Russell, Ladd, & Kudisch, 1995). If these estimates are correct, then it is of paramount importance that HRD scholars and practitioners identify the factors that can impede or facilitate training effectiveness and tie such effectiveness to bottom line organizational performance. Interestingly, "most research on training uses trainees' reactions to a course and their beliefs about the amount they have learned to assess its effectiveness" (Axtell, Maitlis, & Yearta, 1997; p. 201).

In general, researchers and practitioners in the field of training evaluation have long used Kirkpatrick's model for assessing the effectiveness of training programs (Mathieu & Martineau, 1997). Recently, "there has been a call for an expanded view of training effectiveness... the role of training variables such as trainees' motivation and attitudes, both before and after training, should be investigated more thoroughly" (Mathieu & Martineau, 1997; p. 193). Mathieu and Martineau (1997) emphasize that the "effects beyond the immediate training program, such as individual and situational influences, should be considered if a more complete understanding of what makes for effective training is to be developed" (p. 193).

With regard to training motivation, a number of researchers have stated that unless trainees are motivated to learn during training, even the most sophisticated training programs cannot be effective (Axtell et al., 1997; Clark, Dobbins, & Ladd, 1993; DeSimone & Harris, 1998; Facteau et al., 1995; Mathieu & Martineau, 1997; Noe, 1986). "Research has shown that trainees who are motivated on entry into a training program clearly have an advantage from the beginning" (Mathieu & Martineau, 1997; p. 196). This statement is in agreement with the results of two studies which found pretraining motivation to be positively related to posttraining changes in behavior and attitudes

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as well as training transfer (Facteau et al., 1995; Tannenbaum, Mathie, Salas, & Cannon-Bowers, 1991; Warr, Allan, & Birdi, 1999).

Despite the fact that motivation to learn has been recognized as a critical factor for training effectiveness, very little research has been conducted to examine the factors that foster such motivation (Clark et al., 1993; Facteau etal. 1995). In general, motivation to learn has been found to be influenced by personal and situational characteristics (Mathieu & Martineau, 1997). Personal characteristics mostly pertain to personal attributes or attitudes that directly or indirectly affect the extent to which a trainee is motivated or has the ability to learn. Such personal characteristics are self-efficacy, locus of control, need for achievement, independence, extraversion, openness to experience, and cognitive playfulness (DeSimone & Harris, 1998; Mathieu & Martineau, 1997). Attitudes that have been found by research to have an effect on learning are those related to career exploration and job involvement (Noe, 1986).

In terms of situational characteristics, a study by Clark et al. (1993) found career and job utility to be predictors of training motivation. In this study, career utility was defined as the perceived usefulness of training for attainment of career goals. Job utility was defined as the perceived usefulness of training in facilitating the attainment of job goals. According to Clark et al. (1993), a limitation of their study was the exclusion of such important variables as job involvement, organization commitment, and achievement motivation from its design.

A study by Facteau et al. (1995) found the following constructs to be significant predictors of pretraining motivation: training reputation, intrinsic and compliance incentives, organization commitment, and social support for training. This study once again found pretraining motivation to be a predictor of training transfer. Further, this study validated the results of the Tannenbaum et al. (1991) study, which also found organization commitment to be highly associated with motivation to learn.

A more recent study that investigated the motivation to learn construct was that conducted by Kontoghiorghes (2000). What distinguished this study from the previous ones is that it took a more systemic approach toward motivation to learn and incorporated in its design organizational variables that were perceived to affect motivation to perform as well. Given that the ultimate goal of training is to improve performance, the underlying assumption of this study was that motivation to learn not only would be influenced by the immediate learning environment but by organizational variables that are perceived to also influence employee and organizational performance. In short, the results of this study suggested that motivation to learn during training would be greater if the trainee holds a job that assures him or her task autonomy, receives such extrinsic rewards as pay and promotion when applying newly acquired skills and knowledge, and functions in a quality driven organization within which people live up to high ethical standards. A limitation of this study was the small sample (N=75) used as well as the exclusion of the organization commitment construct from its design.

Purpose of the Study

Given the demonstrated importance of the motivation to learn for training effectiveness, as well as the lack of research in this area, the main purpose of this study was to identify additional key variables within the organizational and learning context that could affect motivation to learn. In the process of doing so, this study also attempted to address some of the limitations of earlier studies. In particular, the limitations of the Clark et al. (1993) and Facteau et al. (1995) studies were addressed by investigating the relationship between organizational climate variables and motivation to learn. Moreover, this study addressed the limitation of the Kontoghiorghes (2000) study by incorporating in its design the organization commitment dimension as well as utilizing a bigger sample. Lastly, given the scarcity of research linking motivation to learn and training transfer, another goal of this exploratory study was to describe the relationship between the two variables.

Theoretical Framework

The theoretical and conceptual framework of this study was based on the sociotechnical systems (STS) and total quality management (TQM) theories as well as previous empirical research on motivation to learn and training transfer. Based on the above described theories and research a survey instrument was developed which in turn helped assess all relevant variables pertaining to this study. Briefly, the STS dimensions of the instrument helped determine the extent to which the employees functioned in a system whose design was consistent with STS principles. The thesis of STS theory is that organizations are comprised of two interdependent subsystems, a social system and a technical system, and that changes in one system affect the other system (French & Bell, 1999). Thus, an STS organization is viewed as an open system of coordinated and interrelated human and technical activities, which in turn can not be considered in isolation (Harvey & Brown, 2001). A core principle of sociotechnical design is that the organization must optimize both subsystems in order to achieve high productivity and employee satisfaction. Other core principles of STS design pertain to the formation of autonomous work groups and flatten hierarchies, training group members in multiple skills, giving information and feedback to the people doing the work, designing challenging and motivating jobs, organizing around process-not tasks, rewarding team performance and learning, controlling variance at its source, and be customer driven (French & Bell, 1999; Harvey & Brown, 2001; Lawler & Mohrman, 1998; Pasmore, 1988). According to Pasmore (1988), STS designed organizations "have been demonstrated to produce high levels of commitment and performance" (p. 157). In terms of TQM, the quality management dimensions of the instrument helped determine the extent to which the organization functioned as an excellence and quality driven system with great emphasis on continuous improvement. Finally, based on the results of previous empirical research, questionnaire items were developed to assess the extent to which the employee functioned in an environment that was conducive to training transfer and continuous learning.

In all, this study incorporated in its design variables from the following learning and organizational dimensions: training transfer climate; learning climate; management practices; employee involvement; organizational structure; communication systems; reward systems; job design; job motivation; organization commitment; job satisfaction; innovation practices; technology management; teamwork climate; ethical work culture; and process improvement climate. Organizational performance was defined in terms of the following dimensions: quality, productivity, competitiveness, innovation, rate of change adaptation, and rate of new technology adaptation.

Research Questions

This study attempted to answer the following research questions:

1. Which of the organizational and learning climate variables incorporated in the study can serve as key predictors of motivation to learn during training?
2. Which of the organizational and learning climate variables incorporated in the study can serve as key predictors of motivation to transfer learning back to the workplace?
3. What is the relationship between motivation to learn and motivation to transfer?

Methodology

Instrument. The instrument of this study consisted of a 108 Likert item questionnaire, which was designed to assess the organization in terms of the earlier described dimensions. Many of the dimensions were assessed with scales that were used or described in previous instruments or research (Buckingham & Curt; 1999; Hackman & Oldham, 1980; Lindsay & Petrick, 1997; Macy & Izumi, 1993; Pasmore, 1988; Pasmore, Francis, Haldeman, & Shani 1982; Rouiller & Goldstein, 1993; Tracey, Tannenbaum, & Kavanagh, 1995; Whitney & Pavett, 1998), while several were designed specifically for this study. This second generation instrument utilized a six-point scale that ranged from "strongly disagree" to "strongly agree". The first version of the questionnaire consisted of 99 Likert items and was originally pilot-tested on a group of 15 participants for clarity. Furthermore, a group of seven experts reviewed the instrument for content validity. Upon revision, the instrument was then administered to a group of 129 members of four different organizations. Reliability tests were conducted and the instrument was further refined and expanded to 108 items.

Subjects. The sampling frame of this study consisted of 256 employees of a national corporation in the health care insurance industry. The employees were given the survey instrument at scheduled staff meetings. 192 out of the 256 employees returned the survey and the response rate was calculated at 75%. In all, 86.4% of the respondents were females and 13.6% males. In terms of education, 14% had a high school degree, 27.9% an associates, 39.5% a bachelors, 13.4% a masters, and 3.5% a PhD. 1.7% of the respondents did not indicate an educational level. In terms of position held in the organization, the frequency distribution identified 4.1% of the respondents as either a vice president or director of the unit, 4.1% as managers, 11.6% as supervisors, 65.7% as salaried professional, 12.8% as administrative personnel, and 1.7% as hourly employees.

Data analysis. Based on the gathered data, correlational and regression analysis were used to answer research questions 1 and 2. More specifically, through Pearson correlations and stepwise regression analyses the most significant predictors for the motivation to learn and motivation to transfer variables were identified. To answer research question 3, or to describe the degree of association between motivation to learn and motivation to transfer, a Pearson correlation was utilized. The degree of association between the two variables was further assessed by identifying the predictive utility of motivation to learn when building the regression model for motivation to transfer. Lastly, the reliability of the instrument was measured in terms of coefficient alpha and was calculated at 0.986.

Results and Findings

In total, the motivation to learn and motivation to transfer variables were found to be positively and significantly correlated with 101 and 90 of the other 107 variables incorporated in the questionnaire respectively. The correlations ranged from 0.149 to 0.558 and covered all dimensions incorporated in the questionnaire. This finding is indicative of the systemic nature of training effectiveness and its dependence on many factors outside the learning context. Given the large number of significant correlations found for both variables, Tables 1 and 2 summarize only those that were found to be above 0.4.

As shown in Table 1, motivation to learn was found to be highly correlated with variables that predominantly comprised the learning, job design, quality management, and organization commitment dimensions. In particular, the data in Table 1 suggests that a trainee will be more likely to be motivated to learn during training if he or she functions in an environment that a) is characterized by a high degree of employee commitment; b) provides the employees with learning and growth opportunities as well as support for development; c) allows the employees to have the opportunity to do what they do best and takes advantage of their talents and abilities; d) is

Table 1. Pearson Correlations of Motivation to Learn During Training

Variable	Motivation to Learn
Learning Environment Variables	
Learning is well rewarded	$r = .401^{**}$ (N = 192)
Expected to use new skills and knowledge	$r = .405^{**}$ (N = 192)
Continuous learning is a priority	$r = .418^{**}$ (N = 191)
Motivation to transfer	$r = .464^{**}$ (N = 191)
Task cues	$r = .475^{**}$ (N = 191)
Learning and growth opportunities	$r = .476^{**}$ (N = 190)
Job Design Variables	
Job takes advantage of talents and abilities	$r = .410^{**}$ (N = 191)
Job importance	$r = .442^{**}$ (N = 191)
Task autonomy	$r = .452^{**}$ (N = 192)
Motivating job	$r = .452^{**}$ (N = 192)
Support for development	$r = .463^{**}$ (N = 191)
Have opportunity to do what I do best	$r = .476^{**}$ (N = 191)
Quality Management Variables	
Customer needs are important	$r = .405^{**}$ (N = 186)
Use objective data for quality improvement	$r = .422^{**}$ (N = 186)
Emphasis on doing things right the first time	$r = .436^{**}$ (N = 187)
Coworkers committed to quality work	$r = .438^{**}$ (N = 191)
Job contributes to quality mission	$r = .450^{**}$ (N = 191)
Organization Commitment and Satisfaction	
Company satisfaction	$r = .425^{**}$ (N = 187)
Committed to this company	$r = .558^{**}$ (N = 189)

**. Pearson correlation is significant at the 0.01 level (2-tailed) conducive to job motivation and allows task autonomy; and, e) is quality and customer driven. Finally, the data in Table 1 suggests that trainees will be more likely to be motivated to learn during training if the new skills and knowledge to be learned are very similar to the actual tasks performed on the job.

In terms of the motivation to transfer, the correlations in Table 2 suggest that a trainee will be more motivated to transfer the newly learned skills and knowledge back to the workplace if he or she a) is motivated to learn; b) finds his or her job motivating and important; c) is provided with learning and advancement opportunities; d) is committed to the company; and e) is expected to use the new skills and knowledge back on the job.

Table 2. Pearson Correlations of Motivation to Transfer

Variable	Motivation to Transfer
Learning Environment Variables	
Expected to use new skills and knowledge	$r = .400^{**}$ (N = 191)
Learning and growth opportunities	$r = .425^{**}$ (N = 190)
Motivation to learn	$r = .464^{**}$ (N = 191)
Job Design Variables	
Opportunities for advancement	$r = .400^{**}$ (N = 190)
Job importance	$r = .424^{**}$ (N = 190)
Motivating job	$r = .444^{**}$ (N = 191)
Organization Commitment	
Committed to this company	$r = .403^{**}$ (N = 188)

**. Pearson correlation is significant at the 0.01 level (2-tailed)

Comparing the type and number of variables found in both correlational tables, one can observe that all variables that were found to exhibit a correlation of 0.4 or higher with the motivation to transfer variable, were also found to be highly associated with motivation to learn. In all, these variables stemmed from the learning, job design, and organization commitment dimensions. Further, motivation to learn was found to be the variable most highly associated with motivation to transfer. Motivation to learn was in turn found to exhibit its highest correlation with organization commitment. What this finding seems to suggest, is that motivation to learn and motivation to transfer are highly interlinked and influenced by a set of common variables. This exemplifies the importance of motivation to learn, when it comes to successful training transfer.

In terms of the regression analysis, the regression model for motivation to learn is displayed in Table 3 and for motivation to transfer in Table 4. As it is shown in Table 3, the selected 11 variables incorporated in the motivation to learn regression model accounted for 57.6% of its variance. At 30.7%, and thus accounting a little more than half of the total variance, organization commitment proved to be the strongest predictor of motivation to learn. Task cues, or the extent to which training is very similar to the actual tasks performed on the job, was the second predictor selected by the model and accounted for 9.9% of the total variance. The other two predictors that made a significant contribution in this model were those pertaining to coworkers being committed to quality work and task autonomy. The latter two variables accounted for 5.6% and 4% of the total variance respectively.

According to the regression model depicted in Table 4, six variables accounted for 34.7% of the variance of the motivation to transfer variable. Accounting for 21% of the total variance, motivation to learn was found to be the strongest predictor of motivation to transfer. Having a motivating job was chosen next by the stepwise regression model. The other predictors selected were: the trainee is expected to use the newly learned skills and knowledge back on the job; coworkers are committed to quality work; the trainee functions in an environment that provides opportunities for advancement; and, the employee functions in an environment within which teamwork is rewarded.

Table 3. Stepwise Regression Model for Motivation to Learn During Training[a,b,c]

Model	Variables					
	Entered	Removed	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	Committed to this company		.558	.311	.307	1.06
2	Task cues	.	.643	.413	.406	0.98
3	Coworkers committed to quality work	.	.686	.471	.462	0.93
4	Task autonomy	.	.717	.514	.502	0.90
5	Have best friend at work	.	.726	.527	.513	0.89
6	Participative organization	.	.734	.539	.522	0.88
7	Continuous learning is a priority	.	.746	.557	.539	0.86
8	Customer loyalty	.	.756	.572	.551	0.85
9	Excellence commitment	.	.763	.582	.560	0.84
10	Peer output complete	.	.770	.593	.568	0.84
11	Opportunity to do what I do best	.	.776	.603	.576	0.83

[a]. Dependent Variable: Motivation to Learn During Training; $N = 174$

[b]. Method: Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

c. $F = 22.49$, $p < 0.001$

Table 4. Stepwise Regression Model for Motivation to Transfer[a,b,c]

Model	Variables					
	Entered	Removed	R	R^2	Adjusted R^2	Std. Error of the Estimate
1	Motivation to learn		.464	.215	.210	0.88
2	Motivating job	.	.533	.284	.276	0.85
3	Expected to use new skills and knowledge	.	.559	.313	.301	0.83
4	Coworkers committed to quality work	.	.578	.334	.319	0.82
5	Have opportunities for advancement	.	.593	.352	.333	0.81
6	Teamwork rewarded	.	.608	.369	.347	0.80

[a]. Dependent Variable: Motivation to Transfer; $N = 174$

[b]. Method: Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

c. $F = 16.406$, $p < 0.001$

Conclusions and Recommendations

In all, the results of this study supported the findings of some earlier studies while at the same time gave some new insights in the training motivation and effectiveness areas. First, motivation to learn was proven to be a strong predictor of motivation to transfer. This finding in essence a) validates the results of several studies that linked training motivation to training transfer (Facteau et al., 1995; Tannenbaum, Mathie, Salas, & Cannon-Bowers, 1991; Warr, Allan, & Birdi, 1999), and b) exemplifies the importance of addressing the motivation to learn component when assessing the training transfer climate. Simply put, if trainees are not motivated to learn in the first place, little or no training transfer will occur regardless of how well training was designed and conducted, or how conducive the organizational climate is to training transfer.

The strong association between motivation to learn and motivation to transfer further attests to the significance of the former when evaluating training effectiveness, and also supports Mathieu's and Martineau's (1997) call for an expanded view of training effectiveness. What the findings of this study suggest, is that training effectiveness will be facilitated further if the factors affecting motivation to learn are assessed and if necessary addressed before even the training program is implemented.

The results of this study also supported the outcomes of the Facteau et al. (1995) and Tannenbaum et al. (1991) studies, which found employee commitment to the organization to be a strong predictor of motivation to learn. Since commitment to quality work was found to be a predictor for both, motivation to learn and motivation to transfer, this study also supported the results of the Kontoghiorghes (2000) study which in turn found motivation to learn to be positively related to a quality driven culture. The latter finding also confirms the assumption that training motivation, and hence training effectiveness, are indeed influenced by organizational variables that directly or indirectly affect employee or organizational performance.

Finally, another significant finding of this study is the identification of job motivation as an important predictor for training transfer. This is an important finding because in many respects helps enhance the conceptual framework of the training transfer domain and reinforces the point that training effectiveness cannot be studied in isolation. Training may indeed take place in an environment that is highly conducive to training transfer; but would the trainee be motivated to transfer the new skills and knowledge back to the job if he or she does not find his or her job motivating?

How this Research Contributes to new Knowledge in HRD

As stated in the introduction, motivation to learn has been identified by many researchers as a critical component for training effectiveness. Despite its importance, however, very limited research has been conducted to develop a better understanding of it. Further, a limitation of previous research was the exclusion of the organizational climate from its design. By taking a more systemic approach, this study was able to explore the validity of earlier findings as well as identify some new important variables for motivation to learn and motivation to transfer. A limitation of this study was the fact that the data was collected form a single source. Thus, replication of this study in different organizational settings and industries will help determine the validity of its results.

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If We Can't Define HRD in One Country, How Can We Define It in an International Context?

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Is it possible to define HRD in a way that is appropriate in a world-wide context? That was the question for this research. Several factors were found that influence a country's and an individual's definition. The most common U.S. definitions have influenced definitions around the world, yet definitions are also influenced by the context in which they have emerged. Definitions from several countries have been compared, and a beginning definition that meets the conditions of many countries is proposed.

Keywords: Definitions, Global, Theory

While there have been many efforts to define Human Resource Development (HRD) (Weinberger, 1998), no consensus has emerged. In fact, there is disagreement among the field's leaders about whether or not a singular definition is even a worthy goal (Ruona, 2000). Weinberger's (1998) review of US literature yielded more than 15 definitions of HRD. "The definitions that have been uncovered and consolidated represent the commonly held themes in the field today, from a US American perspective" (pp. 75-76). However, a U.S. perspective alone does not represent the entire field of HRD.

The world in which we live and work, including the field of HRD, is becoming increasingly global (Marquardt, 1999). However, the majority of articles and arguments aimed towards defining the field of HRD have at least one thing in common--they are written from the North American, and, more specifically, the US-American point of view (Ruona, 2000; Weinberger, 1998). Yet, as Hillion and McLean (1997) pointed out, "It appears that the definition of HRD terms vary from one country to another, and the national differences are a crucial factor in determining the way in which HRD professionals work (e.g., Okongwu, 1995; Yang & McLean, 1994)" (p. 695). In fact, "There are no universally accepted definitive statements of the meaning of HRM or HRD" (McGoldrick & Stewart, 1996, p. 9). How, then, are we to begin to define HRD in a global context?

Purpose of Research

There are those in the field of HRD who feel that it is important to define HRD more definitively. Ruona (2000) concluded that, "As a profession, we have not done a very good job of working to identify who we are, what we stand for, and what we can do for those we serve" (p. 2). The primary purpose of this paper is to explore definitions of HRD given by HRD scholars and practitioners around the world. In addition, we will summarize similarities and differences among these definitions and propose a global definition of HRD. In doing so, it is hoped that as the field will continue to discuss its definition, without, from the authors' perspective, having to agree on a specific definition. Further, a global perspective may help us all gain new insights and move us beyond our own ethnocentrism.

Research Questions

This study was designed to identify definitions of HRD used around the world, compare and contrast them, and propose a beginning global definition of HRD. To accomplish these objectives, the Internet was used to contact scholars and practitioners around the world. The following questions were posed to each respondent:

1. What is your personal definition of HRD?
2. What is a definition of HRD that seems most widely used or applicable in your country?
3. What reference or references (journal) support this definition?

In addition, taking a post hoc approach, the data appeared to answer the following question: Who are the intended audiences and benefactors of HRD?

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Methodology

Two primary approaches were used to accomplish the purposes of the study. First, available English language literature was reviewed, although participants were also asked to provide translations of references from available literature in their language, if available. As indicated, above, however, the literature readily available in the United States tends to focus on a U.S. perspective. Non-English language literature that may exist created a limitation to this approach. Thus, the literature review, initially, yielded very few sources. However, as those queried responded, additional resources were identified that yielded useful insight.

By far, however, the most useful information emerged through contacts that were made via e-mail. The senior author compiled a list of HRD scholars and practitioners from his own contacts who were from or working in countries other than the United States. A snowball approach (Patton, 1990) was also used, in which those who were contacted suggested additional contacts. Further, the international organizations who were affiliated with the International Federation of Training and Development Organizations (IFTDO) for whom e-mail addresses were available were also contacted. An e-mail was sent with the three questions. A follow-up e-mail was sent with a reminder. Some regions of the world seem to be underrepresented. While this may be due to the source of the respondent lists, it is more likely a result of the emerging nature of HRD in many regions of the world. Because of the snowballing efforts, no attempts were made to determine response rate. This was not a random selection, and no statistical analyses have been applied. Further, given the exploratory nature of this study, no attempts have been made at generalization.

The analysis of the data was a two-step process. First, the results of the literature review and the individual e-mail responses were reviewed several times for emerging themes. Next, from these themes, conclusions were drawn, and recommendations were made.

Findings: Dimensions and Contexts of Global HRD Definitions

The goal of this section is to provide a summary of the data collected and an interpretation of those data. The findings focus on two perspectives emerging from the data; first, the dimensions along which the definitions varied, and, second, the national context that is reflected in the countries' definitions.

Dimensions along which the Definitions Varied

The definitions collected (detailed in Table 1) varied according to several dimensions, including scope of activities included in the definition, intended audience for development, and the intended benefactors of the outcomes of development. These dimensions emerged from a detailed and repeated reading and analysis of the proffered HRD definitions.

Scope of Activities. The scope of activities considered to be HRD range from being strictly limited to training (A. Ardishvili, personal communication, October 1, 1998 (Russia); J. N. Streumer, personal communication, September 28, 1998 (Netherlands); M. S. Park, personal communication, June 29, 1998 (Republic of Korea)) to being as broad as activities that make "it possible for all people to develop their full potential in physical, emotional, spiritual and intellectual terms, while improving their technical and productive skills, to ensure their full participation in the process of national development" (8th NESDP, 1997, p. 9, as cited by V. Busaya, personal communication, June 19, 1998 (Thailand)). While these points of view are at the extremes of the spectrum, most definitions fell somewhere between and focused on activities related to learning/behavior change, performance improvement, and changing attitudes or organizational culture (Rao, 1985 (India); Stewart & McGoldrick, 1996 (UK); J. N. Streumer, personal communication, September 28, 1998 (Netherlands)). Many of the US definitions cited in Weinberger (1998) followed McLagan's (McLagan & Suhadolnik 1989) classic research that included primarily organization development, career development, and training and development in her definition of HRD.

Intended Audiences and Benefactors of Human Resource Development. Most definitions focused on the individual (T&D, CD) or organization (OD) as the targeted recipient of HRD activities. However, the main differences were related to the intended benefactor of the HRD activities. For example, in Australia, the purpose of HRD is "to improve organisational effectiveness and individual performance" (Australian Public Service Commission, March, 1992, as cited in D. Short, personal communication, September 29, 1998). However, in both Singapore and Thailand, the aim of HRD is to benefit the individual, the organization, and the nation (A. M. Osman-Gani, personal communication, August 31, 2000; 8th NESDP, 1997, as cited in V. Busaya, personal communication, June 19, 1998). At least one definition in the US includes not only the individual and organization level, but also the process level (Swanson, 1995). Another definition from Thailand (Na Chiangmai, 1998) included the community as the benefactor.

National Contexts Reflected in Country Definitions

Differences in national culture are reflected in the definitions collected from around the world. Just as products emerge in a market to fulfill a customer need, so, too, do fields develop in order to meet particular needs. Lee and Stead (1998) observed:

> In the United Kingdom, HRD is seen as a relatively young and predominantly Western concept that has emerged from management thinking and has been shaped by values and events as Europe has transformed itself over the past fifty years. This view is based on the argument that as one era presents a need, solutions are created to meet that need, which creates a new approach and perspective (Lessem, 1998; Kinsman, 1990, Pedlar, Burgoyne, and Boydell, 1991). (p. 297)

HRD, with its focus on humans, is heavily influenced by the context in which it is studied and practiced. By definition, context is determined in part by culture, which varies from nation to nation and organization to organization. Following are examples of how the definitions collected were influenced by the national context.

Influence of Economy on Definitions of HRD. Lee and Stead (1998) used Maslow's hierarchy of needs to explain the different focus of Human Resources (HR) at different points in history in the United Kingdom. The state of a nation's economy can dictate where on Maslow's hierarchy the majority of a nation's citizens, and workforce, reside. As argued earlier, if HRD is to be a solution, it must meet a need that exists in the country. Therefore, one would expect to see evidence of differences among countries' economies to be found in their definitions of HRD.

Countries such as Russia and China are in transition from a planned economy to a free market economy. With this transition come significant challenges for organizations trying to compete in a global economy. Some of these challenges are driving the need for HRD. Two trends cited in the China: Human Resources Update (News brief, 1998) are unprofitable state enterprises shutting down, putting large numbers of employees out of work, and workers transitioning from state organizations to private ones. Russia is facing similar trends. Under the planned economy, there was much more focus on ensuring that everyone was employed than on the development of individuals. This perspective is reflected in the response received about Russia:

> In my country (Russia) the concept of HRD is different. First, the language used is mostly from the realm of 'Personnel staffing, selection and training.' The word 'development' is not as widely used. In general, this reflects an emphasis on managing the employee pool, rather than on helping each individual employee to develop his/her abilities. (A. Ardishvili, personal communication, October 1, 1998)

Influence of Government and Legislation on Definitions of HRD. In some countries, where the government is involved in setting HR policy, the definitions of HRD reflect this such that performance is not the sole objective of HRD. In France, for example, "HRD is often used as a synonym for 'developpement social' (social development) of which the objective is to take into account the employee's satisfaction at work (and even in some personal issues, such as health, children, education, etc.)" (F. Sechaud, personal communication, October 1, 1998). The government in France plays a significant role in HRD in France, even within organizations. For example, a 1971 law required companies with more than ten employees to spend 1.5% of their payroll on training of their employees. Additionally, a 1984 law requires companies to grant a paid leave of absence to employees wishing to be retrained in a field of his or her choice (Deligny, 1998). By nature of a government's mandate, they must keep the national interest at the root of their policies. And, because the French government is involved in setting HRD policy for companies, HRD takes on a national flavor.

Influence of Other Countries on Definitions of HRD. In the responses from some countries, the definitions given referred directly to a US definition of HRD. In some cases this appears to be a result of the respondent having been educated in the United States. This is most easily seen in the differences between the participants' personal definitions of HRD versus the national definition of HRD in their countries. For example, Yang (personal communication, Fall 1998), a former doctoral student in HRD from Korea at the University of Minnesota, "agrees with the University of Minnesota definition of HRD. However, in Korea, most practitioners and academicians recognize only the Training and Development aspect of this definition." In other cases, definitions were taken directly from one country, translated and used in another country.

Wallace (personal communication, July 7, 1998) stated that

It is our impression that the Canadian definition of HRD differs little from the American. Our literature is very much influenced by U.S. approaches and research. For the most part, there is not a distinct body of Canadian literature in HRD.

Conclusions

The theme of this paper continues to emerge and will be expanded as the field of HRD becomes more established around the world. One of the problems in doing a literature review is that the literature of many countries (e.g., People's Republic of China, Korea, Japan, etc.) is not available in English and is not contained in data bases readily accessible. It is hoped that the deficiencies of this paper will gradually disappear as those with facility in non-English languages begin to identify resources that exist in the non-English HRD literature and in the literature that was simply not available during the research for this study.

Given the nature of the current investigation, the following conclusions emerge:

- By far the most extensive literature on HRD that has been identified in this research is out of the US and the UK, with India emerging as having an extensive literature, though it is not yet readily available or recognized outside of Asia.
- The predominance of US-based or modified definitions may, in addition to the predominance of the literature, be explained by the fact that many international students are being educated about HRD in the US. This exposure to US definitions has influenced how HRD is viewed in other countries. This process is not dissimilar to the emergence of US popular culture around the world.
- Professional organizations also seem to play an important role in the predominant influence of certain cultures. For example, the McLagan and Suhadolnik (1989) study, which has been so influential, was funded and disseminated by the American Society for Training and Development (ASTD). Much of the English language scholarly literature in HRD is sponsored by US and UK professional organizations (e.g., Academy of Human Resource Development, Society for Industrial and Organizational Psychology, International Society for Performance Improvement, The Organization Development Institute, University Forum for HRD), while the Academy of Human Resource Development (India) is emerging as a significant source of literature in India.
- There appears to be a difference in both the perception and practice of HRD in local companies compared with multinational companies (MNCs), with the MNCs much more likely to be influenced by their home countries.
- The definition of HRD is influenced by a country's value system, so we see the emphasis on performance in the US context, while religion and community predominate as influences in Thailand.
- Definitions vary according to the point in the life cycle of the field (US, UK, Thailand vs. Russia, China), which is, in part, linked to form or growth in the economy. While HRD is not mature in any cultural context, it is generally perceived to be most mature in the US, while it is still in an emerging state in many countries.
- In several countries, HRD is not distinguished from HR but is seen, systemically, as being a part of HR. This applies, for example, in France and the People's Republic of China, while many, particularly in practice, in other countries also fail to make a distinction, even when the academicians make such a distinction.

How This Research Contributes to New Knowledge in HRD

Growth in HRD means expanding the boundaries of our definition. Professional organizations are becoming increasingly globally networked and so, too, is practice and academia. If we are to create a body of knowledge that is relevant to academicians and practitioners around the world, the definition we use must be inclusive of the range of contexts that exist in the multitude of nations in which we live and work. The following definition is one which we feel captures many of the elements of the many definitions included in this research and may well serve as a beginning point for dialogue in forwarding the development of a truly global definition of HRD.

> Human Resource Development is any process or activity that, either initially or over the long-term, has the potential to develop adults' work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organization, community, nation, or, ultimately, the whole of humanity.

Thus, HRD can be found in all areas of the HR Wheel (McLagan & Suhadolnik, 1989), though, to be classified as HRD, the intent of the activity must fit within the definition, above. As has widely been accepted within the field, Training and Development, Organization Development, and Career Development clearly fit. However, many components of Employee Assistance, Compensation and Benefits, Strategic Planning, and HR Research, for example, fit into this definition. So, too, do areas not specifically identified in the HR Wheel, such as Continuous Quality/Process Improvement, International/Cross-Cultural Awareness, Diversity, Community Building, National Vocational Qualifications, and Employee Retention, and, we are sure, many others would also fit.

One example of how we would distinguish between HRD and HRM in one slice of the pie—compensation and benefits--might be the market research to determine the market distribution of pay for given positions, which would be the responsibility of HRM. Moving toward an ESOP (Employee Stock Option Program) or gainsharing plan, however, could have significant impact on employee satisfaction and productivity, thus moving it into the realm of HRD. The specifics for monitoring and recording the activities themselves, however, would remain an HRM function. Thus, such an undertaking would call for the partnership of HRD and HRM.

By no means do we expect that this will be *the* definitive definition of HRD now and forever. We agree with Mankin's (in press) contention that "...practitioners and academics should embrace HRD as an ambiguous concept, as it is this ambiguity that provides HRD with its distinctiveness." This is consistent with the senior author's contentions in an upcoming publication (McLean, 2000) in which he argued that ambiguity is an essential component of life, and the drive to remove ambiguity from our definition of HRD is futile and cannot happen. Lee (1998) concluded that she was unable to define it sufficiently for herself, let alone for others. That's the difficulty of the task that is before us in developing a definition of HRD.

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Table 1. Human Resource Development Definition Summary, by Country
(Due to space limitations, only selected definitions are included.)

Country/Source	Definition(s)	Benefactor of HRD:	Key Components
People's Republic of China (The China Training Center for Senior Civil Servants, 1997) (Yan & McLean, 1998)	**A planned and organized education and learning process provided by organizations to improve employees' knowledge and skills as well as change their job attitudes and behaviors. The process helps unleash the employees' expertise for the purpose of enhancing the individual performance and achieving the effective organizational functions.** [*This definition sounds very similar to Swanson's (1995) definition.*] In many ways, there is no distinction at present between HR, HRD, and Personnel.	• Individual • Organization	• Planned and organized • Process • Skills, attitudes, behaviors
China (Taiwan) (Kuo & McLean, 1999)	At a national level, HRD has often been used synonymously with Manpower Planning. At a business level, HRD is often seen as synonymous with Training and Development and falls under HR rather than as a separate department.	• Individual • Nation	• Manpower Planning • T&D
Cote d'Ivoire (C. Hansen, personal communication, September 29, 1998)	HRD as separate from HR is not known. So HR is mostly thought of as a personnel function (and the administration of training requests) with few people formally trained in related fields, such as psychology or the sociology of work. Ivorian HR directors desire change as they wish to see the field operate as more of a strategic and systemic function. So I would say that the definition of our field is in transition.	• Organization	• Same as HR
France (F. Sechaud, personal communication, October 1, 1998)	HRD covers all practices that contribute to enhance the contribution of people to the organization's objectives: competence development, satisfaction of the human requirements of organisational development, training, internal career paths, etc. The term of 'developpement social' (social development) is often used as a synonym of HRD.	• Individual • Organization	• T&D • OD • CD • Social Devl
Germany (K. P. Kuchinke, personal communication, October 1, 1998)	In Germany, ...there is no field defined as HRD, hence no definition. There is a training industry, of course, and consultants from a variety of backgrounds. Personnel specialists in Schools of Business (at least their German equivalent) do some of the research.	• N/A	• T&D
India (Rao, 1996)	HRD in the organisational context is a process by which the employees of an organisation are helped, in a continuous, planned way to: 1) Sharpen their capabilities required to perform various functions associated with their present or expected future roles; 2) develop their general capabilities as individuals and discover and exploit their own inner potentials for their own and/or organisational development purposes; and 3) develop an organisational culture in which supervisor-subordinate relationships, team work, and collaboration among sub-units are strong and contribute to the professional well being, motivation and pride of the employees. (page number not specified)	• Individual • Group/Team • Organization • Process	• Process • Continuous and planned • Process • Present or future • Capabilities • Culture

Japan (Harada, 1999)	The concept of human resource development in Japan can be identified by three terms, based on explanatory translation. These terms are *Noryoku kaihatu* (development of individual abilities), *Jinzai keisei* (formulation of a mastery level of human resources through the work system and training), and *Jinzai ikusei* (fostering the development of human resources through management of the human resource process) (Hanada, 1987; Kitajima, 1995; Koike, 1985, 1995). Three major HRD components are Individual Development (ID), Career Development (CD), and Organizational Development (OD) (Harada, 1999, p. 357).	• Individual • Group/Team • Organization	• Individual Development • OD • CD
Korea (M. S. Park, personal communication, June 29, 1998)	I think that the definition of HRD is the broad concept including T&D, OD, CD. But most of Korean staff working in HRD Center, training center, or education department think about the definition of HRD as only including T&D.	• Individual • Organization	• T&D
Netherlands (J. N. Streumer, personal communication, September 28, 1998)	Recently the faculty of Educational Science and Technology (departments of Curriculum Technology and Educational Administration and Management) has started the Second National Study on Training and Development in Business and Industry. In this project, HRD is understood as all training and development interventions that are made to create and further develop human expertise within the context of an organisation in order to (further) improve the effectiveness of the organisation.	• Individual • Organization	• T&D
Singapore (A. A. M. Osman-Gani, personal communication, August 31, 2000)	In Singapore, the major public sector agencies (PSB, EDB, MOM) describe HRD (or manpower development) as the activities related to the knowledge and skills development through education, training and re-training, in a lifelong learning process for improving productivity at the personal, organizational and national levels.	• Individual • Organization • Nation	• T&D
Thailand (V. Busaya, personal communication, June 19, 1998)	HRD is an interactive process of enhancing and facilitating the development of capabilities and potentials of individuals, organizations and communities through organization development and community development to attain effectively efficiently and harmoniously personal and organization goals, as well as communal goals. (Na Chiangmai, 1998)	• Individual • Organization • Community • Nation	• Realization of potential • Tied to economic growth
United Kingdom (Stewart. & McGoldrick, 1996)	HRD is a relatively new concept which has yet to become fully established and accepted, whether within professional practice or as a focus of academic enquiry (p. 1). Key elements include: • Activities and processes which are intended to have impact on organisational and individual learning. • HRD is constituted by planned interventions in organisational and individual learning processes. • Constituted by interventions that are intended to change organizational behaviour. • Other dimensions related to HRD: Strategic, Organisation, Long term, Cultural, Organic, Change	• Individual • Organization	• Planned • Process • Behavior change/learning • Strategic

A Refusal to Define HRD

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This paper argues that although it is necessary at times to define HRD for political reasons, on philosophical, theoretical, professional, and practical grounds HRD should not be defined. To proffer definitions of HRD is to misrepresent HRD as a thing of being rather than a process of becoming, and the defining of HRD is a moral issue.

Keywords: Philosophical Roots, Definitions, Moral Responsibility

In almost any educational situation it is common practice to first define the area or subject that is to be studied. It is generally considered to be the exercising of '*good* practice' if the syllabus and content that are to be taught are derived from such definition, if the students are actively encouraged to study and revise in the light of this structure, and if the assessment and evaluation of students, staff and course reflect and reinforce the coherence of the whole. This notion of '*good*' practice holds some moral force. A '*good*' teacher, trainer, or HRD professional is someone who lays out the subject clearly and coherently – in the predominant western model of education, to fail to do so is to be a '*bad*' educator.

In this paper I shall argue that this approach does particular disservice to the development of those who wish to become HRD professionals, as the notion and practice of 'HRD' is dynamic, ambiguous, and ill determined. Although the main thrust of this paper is conceptual, I firmly believe that philosophy and theory need to be rooted in practice, and thus I will draw upon the experience of a course that is now closed in order to counterpoint my arguments.

Scene Setting

In the early 1990's I started a Master's course at Lancaster University (MSC in HRD (by Research) designed to lead to both professional and academic qualifications for international cohorts of senior HRD professionals). In the first workshop of each cohort, people were getting their bearings – feeling what the course might be like. Two months later, after people have been back at work and started to reflect upon links between the academic and professional sides of their lives, they attended the second workshop – and the defining of HRD became paramount in most people's minds. It was as if they believed that they could not progress until they knew what HRD 'is'. Through this knowledge their future study and work roles would be laid out in front of them, such that so long as they knew where the path was, they could achieve excellence through sheer hard work. These 'classical' views shifted quite rapidly, but for a couple of days it was as if they thought that in refusing to define HRD for them, as course designer and leader I was deliberately and maliciously preventing them from achieving.

This programme generated significant income and proved to be extremely successful with the students, many of whom keep in touch and say that it has fundamentally changed their lives. About 85% obtained promotion or changed jobs during or directly after the programme. All participants had to have at least five years professional experience, and even though about 25% came with little academic experience, the majority of students achieved exceptionally good academic results, with about 20% registering for PhD's following the programme. On all the normal criteria it was considered to be an extremely successful programme, yet, despite this, the programme was terminated after running for only four cohorts. One reason for this might be because it adopted a philosophy and practice fundamentally different to that of 'normal' academe.

The Philosophical Case for Refusing to Define HRD

I designed the programme shortly after I joined Lancaster University, having previously spent twenty years working for others and myself in the field. Most of the literature (at that time) did not really reflect my own professional experiences, and there seemed to be a certain cynicism about regurgitating 'the literature' in the knowledge that it was a chimera. I therefore designed my Master's programme to reflect the way in which I understood my role as an HRD professional, and as an 'educator' of others. It seemed to me that in my professional life, whilst I carried a central

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core of understanding from each experience that came my way, 'I', and 'my understanding' shifted and changed according to that experience – and each experience influenced, and was influenced by, future experiences. I could never say 'this is the organisation', 'this is my role', and 'this is what I am doing' as I could never manage to complete or finalise any of these states.

Similarly, as an educator, I could not identify with any firm body of knowledge and say… 'this is what is needed'. I could see that people needed knowledge, but that most of what they needed would be situation specific.. the knowledge needed by an Angolan participant would be very different to that needed by someone working in Hong Kong; working multi-nationally needed different knowledge and skills than working with SME's, working in the voluntary sector appeared fundamentally different to working with the corporate fat-cats… and so on. I could see that people needed different knowledge and skills, and that they would need to shift and change – to emerge into new roles and 'selves'. There did seem to me to be some meta-level areas of activity in what I did, and it was these that I tried to capture as workshop topics.

I therefore designed a course that avoided specification – or at least, the only specification was for the areas of focus on the different workshops, the form (not the content) of the assessed research projects and international placement), and the form of process that occurred over the different days of each workshop. The programme was not completely open – participants derived implicit delineations of the area to be studied from the brochure and the interviews, and, as I shall discuss later, it could be argued that there was an overriding 'definition in practice', but there was no set content or syllabus, and no area that had to be 'known' to satisfy assessment criteria. Some brochure details and description of the programme are appended. I designed the course like this because it felt the best way to foster the growth of reflective practitioners able to develop and marry best practice with academic credibility and personal strength. This was, however, a challenge to the 'academic' mindset.

As Chia (1997) states *'Contemporary Western modes of thought are circumscribed by two great and competing pre-Socratic cosmologies or 'world-views', which provided and continue to provide the most general conceptual categories for organizing thought and directing human effort. Hereclitus, a native of Ephesus in ancient Greece, emphasized the primacy of a changeable and emergent world while Parmenides, his successor, insisted upon the permanent and unchangeable nature of reality.'*

Parmenides's view of reality is reflected in the continued dominance of the 'belief that science constitutes, by far, the most valuable part of human learning and accomplishment'. He argues that this leads to an atomistic conception of reality in which 'clear-cut, definite things are deemed to occupy clear-cut definite places in space and time', thus causality becomes the conceptual tool used for linking these isolates, and the state of rest is considered normal while movement is considered as a straightforward transition from one stable state to another. '*This being ontology is what provides the metaphysical basis for the organisation of modern thought and the perpetration of a system of classificatory taxonomies, hierarchies and categories which, in turn, serve as the institutionalised vocabulary for representing our experiences of reality. A representationalist epistemology thus ensues in which formal knowledge is deemed to be that which is produced by the rigorous application of the system of classifications on our phenomenal experiences in order to arrive at an accurate description of reality.*' (Chia 1997, p 74). A being ontology is conceptualised with one 'true' reality, the units of which are tied together in a causal system. The truth is out there, we just have to find it!

The Heraclitean viewpoint offers a becoming ontology in which '… how an entity becomes constitutes what the actual entity is; so that the two descriptions of an actual entity are not independent. Its 'being' is constituted by its 'becoming'. This is the principle of process.' 'the 'flux of things is one ultimate generalisation around which we must weave our philosophical system' (Whitehead, 1929: 28 & 240). Cooper (1976) suggests that within such a process epistemology the individuals involved feel themselves to be significant nodes in a dynamic network and are neither merely passive receivers nor dominant agents imposing their preconceived scheme of things on to that which they apprehend. All are the parts of the whole, and the parts, and the whole, change and develop together. From this point of view, there is both one and many realities, in which I 'myself' comes into being through interacting with these and am constituted within them, and the knowing of these is never final or finished.

Integral to 'living' within a process epistemology is the personal quality of what might be called 'hanging loose', or 'negative capability', as described by Keats*: 'And at once it struck me, what quality went to form a man of Achievement… meaning Negative Capability, that is when a man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after facts and reason' (Keats, letters of 21 December 1817).* This quality is one of resisting conceptual closure and thereby creating the necessary 'space' for the formulation of personal insights, and the development of foresight and intuition – it is a quality that is vital for counselling and other helping professions, and one that '*should*' be within the remit of HRD professionals.

All my experience (in 'HRD' and 'life' – not that I can easily separate them) points me to the belief in a world of becoming, one of process epistemology and negative capability. It could be that I am out of step with the 'real world', but I suggest that the Parmenidean house of cards that we construct around us to provide clarity, certainty and delineation, will tumble in the wind of close examination. This house of cards stands on the strength of unique definitions by which every concept has its own, rightful and static place in the order of things. From the Heraclitean perspective, the meaning and 'boundary' of concepts is negotiable. In the following section I shall briefly report on previous work I have done with the notion of 'development', and illustrate that despite being central to our ideas of HRD, even that concept is debatable.

The Theoretical Case for Refusing to Define HRD

Most would agree that, to be meaningful, the definition of something needs to encapsulate the properties or qualities of that which is being defined, such that it can be recognised uniquely from the definition and thereby distinguished from those that are not being defined. This sort of description of what a definition might be, is, in itself, one of being rather than becoming. We could, however, say that a definition of something need not be fixed or permanent, but instead, it could take the form of a working definition… if enough people use a word in a particular way, and know what each other means by it, more or less, then there is tacit agreement about the meaning of that word and its qualities, such that it could be deemed to be becoming defined.

We might, therefore, get a rough feeling for a word by looking at the way in which it is used. In Lee (1997a) I report an attempt I made to develop a working definition of the word 'development'. I examined promotional literature aimed at HRD professionals and found four different ways in which the word 'development' was used. In the first approach that I identified, 'development as maturation' was used as if to refer to a pre-determined 'stage-like' and inevitable progression of people and organisations. 'Development' is seen as an inevitable unfolding - and thus the 'developmental' force is the process itself, which, in turn, defines the end-point. The 'system', be it an individual, a group or an organisation, is seen as being a coherent entity with clearly defined boundaries existing within a predictable external environment - the organisation is discussed as if it were a single living element, whose structures, existence and change are capable of being completely understood through sufficient expert analysis. Concepts such as empowerment and change-agency are irrelevant in an approach that is essentially social determinism, with no place for unpredictable events or freedom of individual choice.

In the second, 'development as shaping', people are seen as tools who can be shaped to fit the organisation. Here, development is still seen to have known end-points, but these are defined by some-one or something external to the process of development. The organisation is stratified and 'senior' management define the end point for 'junior' management - the wishes of the corporate hierarchy create the developmental force. This approach assumes that there is something lacking, some weakness or gap, that can be added to or filled by the use of the appropriate tools or blueprint, and that such intervention is necessary. Individuals (their aspirations and their values, as well as their skills) are malleable units that can be moulded to suit the wider system. 'Empowerment' and 'individual agency' can be part of the developmental agenda, but not in their own right - they are acceptable developmental end points only if ratified by senior management - 'empowerment' becomes a tool to enhance performance and decision making (within limits).

'Development as voyage' is as a life long journey upon uncharted internal routes in which individuals construe their own frames of reference and place their view of self within this, such that each of us construct our own version of 'reality' in which our 'identity' is part of that construct. This is described as an active process in which the individual is continually re-analysing their role in the emergence of the processes they are part of, and in doing so also confronting their own ideas, unsurfaced assumptions, biases and fears whilst maintaining a core of ethicality and strong self concept (Adler, 1974). 'Development', involves a transformative shift in approach that enables critical observation and evaluation of the experience, such that the learner is able to distance themselves from it rather than 'replay' it - experiencing becomes a way of restoring meaning to life (Vasilyuk, 1984). The external world (including organisation and management) might mirror or catalyse 'development', but it is the individual who is the sole owner and clear driving force behind the process. 'Empowerment' would be within the individual's own terms, and might have little regard for organisational objectives.

'Development as emergent' is the fourth approach that I identified. Here 'development' is seen to arise out of the messy ways by which societal aspiration becomes transformed into societal 'reality'. 'The individual's unique perceptions of themselves within a social reality which is continuously socially (re)constructed' (Checkland 1994); in which 'individuals dynamically alter their actions with respect to the ongoing and anticipated actions of their partners.' (Fogel, 1993:34), and; in which they negotiate a form of communication and meaning specific and new to the group and relatively un-accessible or un-describable to those who were not part of the process (Lee, 1994). 'Selfhood' is a dynamic function of the wider social system (be it a family grouping, a small or medium sized enterprise, a large bureaucracy, or a Nation - or parts of each) and as that system transforms so do 'I'. Emergent development of the group-as-organisation is seen to be no different from development of any social system, and is not consistently driven by any single sub-section (be it senior management or the shop-floor). Discussion about planned top-down or bottom-up change is irrelevant, as the words themselves imply some sort of structure to the change. This approach is, of course, in direct conflict with traditional ideas that organisational change is driven by senior management, however, Romanelli & Tushman (1994) offer empirical support for rapid, discontinuous transformation in organisations being driven by major environmental changes.

It would be very simple to place these in a nice 2 x 2 matrix, as in Figure 1. The 2 x2 Matrix is pervasive and well understood in management, but it is a tool of being, rather than becoming. The lines are solid and impermeable, the categories fixed. Instead, as in Figure 2, we can imagine these areas as areas of concentration, in which it is as if the most concentrated 'essence' of that which we are examining is in the centre of the area, and, as it diffuses outward, it mingles with the essences of the other areas.

IDENTITY

END POINT

UNITARY
CO-REGULATED

KNOWN
MATURATION:
Development through inevitable stages.

SHAPING:
Development through
planned steps.

UNKNOWN
VOYAGE:
Development through
internal discovery.

EMERGENT:
Development through interaction with others.

Figure 1. A 2x2 Matrix of 'Development'.

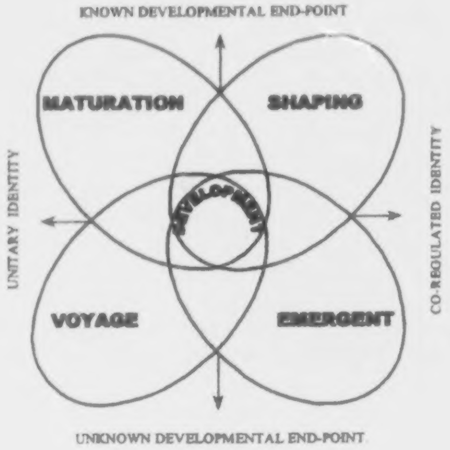

Figure 2. Four Forms of 'Development', after Lee 1997a.

Despite finding alternative ways of representing these findings, which might help address the problem of how to represent the sorts of working definitions associated with becoming, we cannot avoid the fact that there appear to be four fundamentally different working definitions of 'development'. Each of these carries with it a particular view of organisation, and of the nature and role of HRD, and is used under different circumstances. When talking of our own development we normally address it as if it is a voyage. When senior managers talk of organisational development they normally talk of it as if it were shaping. When social theorists talk of development they normally adopt a maturational or emergent perspective (depending upon their theoretical bent). 'Development' is clearly not a unitary concept.

The Professional Case for Refusing to Define HRD

The many ways in which the word 'development' can be used indicates the many different roles that the professional 'developer' might adopt. For example the role of the developer in the maturational system has the sureness of the (relatively) uninvolved expert consultant who charts the inevitable unfolding of the stages. The developer within a shaped system is the process expert who can not only clearly help senior management identify an enhanced future, but can also apply the tools necessary to ensure that such a future is achieved. Such developers sell a 'better' (and otherwise unobtainable) view of the future (to individuals, groups and organisations) - and the blueprint to get there. Those that are being 'developed' are encouraged/moulded to meet the end criteria, regardless of whether such criteria are enhanced skills, positive attitudes or the achievement of corporate objectives. The role of the developer within the system as voyage is one of helping others to help themselves (see, for example, Rogers 1951, 1959). The developer brings 'expert' skills that help the individual recognise their self-imposed bounds and widen their horizons, but does so without calling upon the 'power' of expertise that describes a particular path and endpoint as 'best' for the individual concerned. In emergent systems there is little role for a 'developer' as the developer holds no 'unique' or special status. Developers are as similar and as different as each other member is, and although they (perhaps) have fewer vested interests in political machinations (and thus might be able to view circumstances more objectively), they are as directly involved in the life of the organisation as any of the individuals they are supporting in co-development.

Let us step back for a bit, and take a Parmenidesean view of the world, and examine what is meant by the definition of HRD. In this worldview we have the 2x2 matrix, and four different definitions of the word 'development', only one of which can be what we really 'mean' (the other three need to be renamed – but that is not important to us here). When we talk about '*Human Resource* Development' however, the situation becomes clearer. A 'human resource' is a commodity – something to be shaped and used at the will and needs of the more powerful. The role of the HRD professional is clear, and, by implication, so is the nature of organisation and management. Senior management set the objectives within a clearly defined organisational structure, in which HRD is a subset of the larger HRM function

If we accept the common meaning of the words then there is no alternative to HRD as an activity and profession in which development is about shaping individuals to fit the needs of the organisation (as defined by senior management). Integrity, ethics, and individual needs are not important within this conceptualisation (and need only be considered if the circumstances call for hypocritical lip-service to them). A Parmenidesean definition of HRD, therefore, might be along the lines of 'the shaping of the employees to fit the needs of the employer'. This approach is described by Weinberger (1998) as performance improvement in her examination of theories of HRD, as derived mainly from the US. It is less prevalent in other countries (Geppert and Merkens, 1999, Grieves and Redman, 1999) and most HR Professionals (including those in the US) do not describe their own work in this way (Claus, 1998; Sambrook, 2000). They, and the professional bodies are increasingly paying attention to the ethical aspects of the profession. Some might still see HRD in this way, but for many, the profession has (slowly) moved on to incorporate notions of integrity and ethics, and also to reflect, at least in part, the notion that people are central to the organisation, and thus the strategic role that their development can play.

There is, however, a strong drive to define HRD, particularly within the professional and qualificatory bodies. They need to do so for political reasons - in order to patrol their boundaries, maintain their standards, and bolster their power base. The professional bodies have, in general, abandoned (at least in part) theoretically derived definitions of HRD and instead adopted a practice-based view, in which they attempt to promote what they see as 'best practice' (within their own contexts) through the establishment of their professional standards. These standards do not necessarily reflect what is happening in practice, but instead mirror what the professional bodies would *like* to see happening. As illustrated in Lee et al (1996), 'standardisation' across disparate systems of HRD is likely to have been achieved through cultural imposition, with the accepted 'standards' or definition in practice, belonging to those cultures with the loudest voices. Even if the rhetoric is of the dominant culture, the practice often remains that of the hidden, or underlying culture (Lee, 1998).

Clearly, professional and qualificatory bodies do provide definitions of 'HRD', and these definitions are suitable (generally) to meet their political needs – but this localised and self-serving activity is fundamentally different to that of trying to understand or encapsulate the field of knowledge and activity that is 'HRD'. Perhaps the only way to address the need to encapsulate what is meant by 'HRD' is to draw permeable outlines around this complex of activities that we all know and, for want of any other term, choose to call HRD.

The Practical Reason for Refusing to Define HRD

The idea of a generally acceptable definition of HRD achieved via the processes of standardisation becomes particularly unrealistic when we look at the degree of variation in practice across the globe. As McLean and McLean (2000) demonstrate, it is simply not feasible to seek global standardisation or definition based upon current practice. They conclude that definitions of HRD are influenced by the country's value system, and the point of the life-cycle of the field of HRD in that country, and that the perception and practice of HRD differs according to the status of the organisation (local or multi-national). We can proffer, with some accuracy and completeness, localised 'definitions in practice' or working definitions, however, descriptions of current practice become increasingly meaningless as the variation in practice increases. Furthermore, as soon as these definitions are encased in course brochures, syllabi, professional standards, organisational literature, or other such statements of fact, they stop becoming and ARE. Thus the very act of defining the area runs the risk of strangling growth in the profession by stipulating so closely what the practice of HRD is (or should be), that it is unable to become anything else… and so we reach the heart of the argument.

HRD theorists and professionals are increasingly talking and acting as if the process that we call HRD is dynamic and emergent. Organisational theory, and that of HRD, is starting to explore areas of complexity – and the notion of process itself. In order to accommodate the variation they found in definitions of HRD, McLean and McLean offer a global *processual* definition, namely: *'Human Resource Development is any process or activity that, either initially or over the long-term, has the potential to develop adult's work-based knowledge, expertise, productivity, and satisfaction, whether for personal or group/team gain, or for the benefit of an organisation, community, nation, or, ultimately, the whole of humanity.'* Even such a global definition, however, does not meet everybody's requirements – why is it limited to adults? What of all the child workers in the world? The authors did not include them in the definition as they considered the fact of child-labour to be one of the negative aspects of HRD practice. Thus the 'definition' is really a statement of how the authors would like the field to become.. not how it is.

Heraclites and Moral Responsibility

The views of Hereclitus and Parmenides could be seen 'merely' as two philosophical stances, with little to do with the bottom line of teaching people about making money through managing people in organisations… however this is a limited view of the field, the theory, the practice and the role of HRD – it focuses on one particular culturally specific (though dominant) way of working and end product. From the Parmenidesean perspective, no other viewpoint captures the essence of existence, yet from the Heraclitean perspective the Parmenidesean view could be one among many – all of which together comprise existence. Therefore, despite the dominant focus (in the West, at least) on scientistic definition and measurable outcomes, a broader view of the field shows that the practice or the 'doing' of whatever we mean by HRD is also a process of becoming.

There are parallels here between this and the emergent system of development I describe above. This system reflects the messy ways by which societal aspiration becomes transformed into societal 'reality'. Society 'develops' with no clear end-point and with its emergent activities as the drive behind change, rather than the edicts of the hierarchy (Lee, 1997b). From this perspective, HRD could be seen as that which is in the processual bindings of the system, which links the needs and aspirations of the (shifting) elements of the system, between and across different levels of aggregation, as they are in the process of becoming – but these words are sufficiently general to describe socialisation, per se, they are not a definition of HRD.

In summary of this point, acknowledgement of the Heraclitean cosmology as a descriptor of the metaphysical basis of existence carries with it a moral responsibility that is not entailed by the Parmenidesean cosmology. The act of definition, for the followers of Parmenides, is that of clarifying what exists. This might be complicated or problematic, but its moral valancy is no different to that of emphasising or copying the lines of a line drawing. It is just describing what already is.

In contrast, the act of definition within the Heraclitean cosmology is equivalent to the act of creation. To define is to intervene in the process of becoming, it is to assert a 'right' way, and what 'should' occur. It is to make moral judgements about what is good and bad, and to state these is to attest not only to their legitimacy, but also to the superior power or higher status of the attester. To define is to take the moral high ground and to assert one's power, and, by doing so, it is to deny the right of others to impose their own view on the becoming of HRD.

The world in which we move is political -- all our actions and inactions can be seen as statements of power – but in the Heraclitean cosmos we are responsible for the exercising of that power in a way that does not occur in the Parmenidean cosmos. My attempts to maintain a space of negative capability and lack of definition within the Masters in HRD that I described earlier, was more than an educative ploy. It was an attempt to ensure that each person developed their own, emergent view of HRD – rather than wearing my view (adopting the one propounded by 'teacher') like an old ill-fitting raincoat. In this way, 'HRD' was different for each person and emerged out of their experiences – '*It is not enough to insist upon the necessity of experience, nor even of activity in experience. Everything depends upon the quality of experience which is had.. every experience lives in further experiences*'. (Dewey, 1938)

I was lucky to be able to run my Masters course as I did for four cohorts… many institutions wouldn't have countenanced it or accepted it's notion of self-generating content. Having ensured that its systems of verification and quality management were sufficient, Lancaster University was happy for it to continue indefinitely. It was particular individuals within the department that I was in at the time who caused it to close, largely through fear of the different and a desire to control the uncontrollable. They could not see the dimensions or implications of the processual roots to the success of such a programme, nor could they countenance (or even recognise) the existence of a way of working that was fundamentally different to their own. The Heraclitean *becoming* lost to the Parmenidesean *being*. in a fight in which the becoming was gagged and the being held the power.

By virtue of this paper, whilst acknowledging how very hard it is at times to live in a Heraclitean world, I wish to emphasize that there is no alternative. Each of us, in our professional lives, carries some responsibility as we contribute to what HRD is becoming. We need to be aware that to attempt to define HRD is to serve political or social needs of the minute – to give the appearance of being in control. Instead I suggest we seek to establish, in a moral and inclusive way, what we would like HRD to *become*, in the knowledge that it will never *be*, but that we might thus influence its *becoming*.

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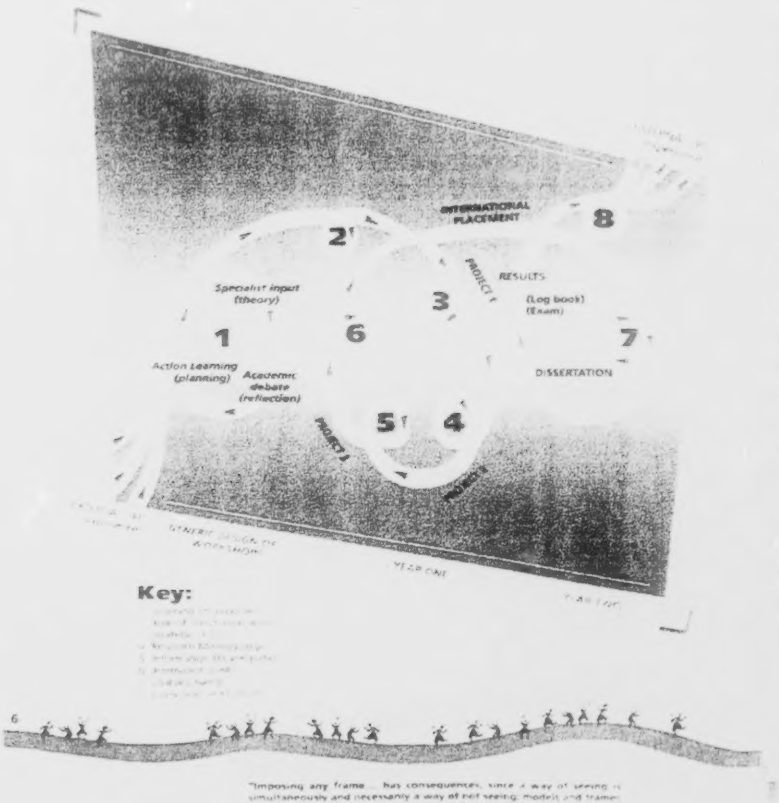
Appendix 1. Outline of the MSC HRD (by research)

The programme consisted of eight four day workshops, over one and a half yours, and was assessed through three guided work-based research projects, an international placement, a learning log, and a dissertation.

Following a Kolb'ian pattern, the process of each workshop shifted daily and forced a focus on the academic [theory], followed by one on the professional (self within group) [reflection], and then the individual [planning], before the return to work [experience]. Specialists were invited during the first two day's of each workshop and were asked to present different views to the group about the workshop topic (half a day each), with specific instructions to be controversial and to follow their pet theories. For each half day the group lived in the world of that specialist – and, given the diversity of each group, there was lots of discussion and hard questioning. I would refuse to clarify, and insist that each person had to come to their own decisions on the differing views presented. I was very determined in ensuring that the third day shifted to one of no content. It was called 'academic debate' as it was set aside for the group to work with the ideas from the previous two days and with their own processes, contextualising theory with practice. This was, initially, hard for the participants, and proved to be particularly hard for those academic co-tutors with no counselling experience. The majority of participants came from commerce-based pressured lives where they had to be doing something. Quite often the group got 'stuck', and occasionally I would jump in with some exercise or idea to shift them, but despite the real pain sometimes associated with the processes of self within group, each group eventually came to value the creation of a reflective space in this way.

Whilst the whole programme was based on principles of Action Learning, (Lee 1996) the fourth day made this more explicit. The group split into sub-groups of about six people each, and these were run as a facilitative action learning set. Each person would have about an hour (even if they said they didn't want it!) in which to address whatever issues they wished. These normally started as work issues, but quickly shifted to individual/group issues, and then, over the next year, moved increasingly towards issues associated with completing the dissertation!

This programme generated its own content, and whilst the process was structured the (majority of the) knowledge wasn't. Participants had full responsibility for their own work, and the tutors acted as facilitators in order to enforce negative capability rather than closure. Although the university structures and hierarchy were happy with this programme, it was closed after running for only four cohorts because politically engineered changes in staffing (as a result of the dominance of the Parm-enidesean viewpoint within the department) resulted in a dearth of staff willing to adopt a Hereclitean approach or to champion negative capability. The Parmenidean insistence upon clear definitions of the area and upon there being only one reality or one 'right' way (with all its attendant moral implications) meant that there was no room for alternative ways of being, or of 'educating' others.


INTERNATIONAL PLACEMENT
8
2
Specialist input (theory)
PROJECT
RESULTS
(Log book) (Exam)
3
1
6
7
Action Learning (planning)
Academic debate (reflection)
DISSERTATION
5
4
PROJECT
PROJECT
GENERIC DESIGN OF WORKSHOPS
YEAR ONE
Key:
6
"Imposing any frame ... has consequences, since a way of seeing is simultaneously and necessarily a way of not seeing; models and frames illustrate some features at the expense of others."

HRD: The Power of Definitions

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This paper subjects the 1995 position statement on the emerging concept of HRD produced by theUniversity Forum for HRD to a critical discourse analysis. It evaluates why the statement was produced in the first instance and the discursive practice it reflected. The analysis surfaces issues associated with developing a replacement version today.

Keywords: Critical Discourse Analysis, Power, HRD Definitions.

An interesting debate has developed in the academic community in both the US and the UK about whether HRD fulfils the requirements of a discipline (Hatcher 2000, Walton 2000). But the debate has been hamstrung by difficulties in obtaining a consensus on what HRD is about in the first place, the domain that it covers and even the terms that it uses. Chalofsky (1992) from an academic perspective has suggested that 'HRD is a field of study in search of itself'. Blake (1995) from a more practitioner oriented standpoint contends that 'the field of HRD defies definition and boundaries'. He goes on to say: 'It's difficult to put in a box. It has become so large, extensive, and inclusive that it's now greater than all outdoors. And the field keeps growing. It continues to spread beyond where it was yesterday, not just domestically but worldwide'. Ruona (2000a) makes the point that although `much scholarly discussion has been devoted to definitional issues in HRD, this dialogue has primarily focused on competing definitions, while comparatively little has explored the issue of definition in and of itself.' Her US focused qualitative study explored whether - and why - HRD should be defined, from the perspective of 5 people who have occupied the role of President of the Academy of HRD, and another 5 people who have been Chair of the American Society for Training and Development Research Committee. Ruona (ibid) quotes one participant in her study who passionately argued against defining the field. 'Who needs a definition? .....It's only a problem if you are driven by trying to define your field and your expertise. I don't feel a need to do that.... Our field is strengthened by having different schools of thought and by its diversity......I don't need to control your definition and I'm certainly not going to let you control mine.' This respondent went on to say: 'The whole thing about disciplines emerging and maturing and going through stages and so on, I think it is all baloney......Why do we have disciplines? Why don't we see life as a holistic complex of perspectives, values, theories, constructs coming together'.

Problem statement

Megginson et al (1993) refer to the 'fog factor' that has developed in the HRD world. 'Anyone new to the world of human resource development will quickly realise that one of the most important requirements for a speedy assimilation is to learn the language'. However they go on to say; 'Don't assume that the people you are working with ....share your understanding.' All of the above creates one of the dilemmas articulated by Elliott (1998) when trying to review texts influential upon HRD in the UK. She felt the picture to be undefined, 'consisting of many fuzzy and indistinct areas with no recognisable boundaries'. This lack of boundaries and 'newness' made it for her an exciting field of work within which to work and write, enabling her to develop her 'own perception of the interdisciplinary nature of the field' but led to a justifiable 'concern that my understanding of HRD is likely to be different from anyone else's, and that because of this others in turn will not understand my understanding'. Ruona has more recently echoed this concern. 'A major barrier for HRD professionals is that our work and what we stand for are not yet well understood by others. Some would argue that we do not yet well understand ourselves either. As a profession, we have not done a very good job of working to identify who we are, what we stand for, and what we can do for those we serve.' (Ruona 2000b)

Even if one adopts an epistomological position that definitions have value, seeking them is fraught with difficulties especially when one is trying to use language to deal with dynamic constructs in a changing world. This was reflected by the philosopher and novelist Iris Murdoch who, in her 1953 analysis of the writings of Jean-Paul

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Sartre, states that : 'The fact is that our awareness of language has altered in the fairly recent past. We can no longer take language for granted as a medium of communication. Its transparency has gone'. (Murdoch 1953, p37 in 1967 Fontana Library edition). She went on to say that the time at which she was writing represented 'the ending of a period of 'essentialist' thinking. In every sphere our simple 'thingy' view of the world is being altered and often disintegrated at an unprecendented rate; and a crisis in our view of the operation of language is inevitable'. (Murdoch ibid p37). She subsequently asked: 'Does the world change first and pull language after it, or does a new awareness of language make us see the world differently?' (Murdoch ibid p39). She was responding to Sartre (1950) who had argued that 'if words are sick, it is up to us to cure them......If one starts deploring the inadequacy of language to reality......one makes oneself an accomplice of the enemy, that is, of propaganda....I distrust the incommunicable: it is the source of all violence'. More recently it has been suggested that words 'change their meanings according to the positions of those who "use" them' (Pecheux et al 1979 p33) and that texts reflect the implicit power orientations of the authors.

Fairclough (1992) refers to the school of 'critical linguistics' which holds, in similar vein, that particular texts embody ideologies or theories. The aim is the 'critical interpretation' of texts; 'recovering the social meanings expressed in discourse by analysing the linguistic structures in the light of their interactional and wider social contexts'. (Fowler et al 1979: pp195-6) The objective is to produce an analytical method for deconstructing texts which is usable by people who are not specialists in linguistics.

Theoretical Framework

Fairclough and Hardy (1997) have suggested that the texts of a number of fields of study can be subjected to 'critical discourse analysis', and apply the technique to the promotional literature of an organisation advertising outdoor training and development courses. Their approach sees written texts as forms of discourse, and draws upon a combination of three different types of analysis; analysis of *discourse (*or *discursive) practice;* analysis of *sociocultural practice*; and analysis of the *text* itself. Fairclough (1992) describes the method as combining social-theoretical and linguistically oriented perspectives on discourse. *Discourse practice* is central since it constitutes the link between text and sociocultural practice and as a concept originates from the work of Michel Foucault. Among the practices of different professions and disciplines, Foucault (1972) made reference to their 'discursive practices': these incorporate the distinctive language they employ and in particular the objects of knowledge and concepts which furnish the reality they construct as being within their field of interest: the tacit rules governing who speaks with authority and under what circumstances; and the latent intentions and ideologies which determine specific thrusts, biases and power orientations. *Sociocultural practice* entails establishing the immediate situational context; the wider institutional context of the event; and the widest cultural and social context within which the event is framed. According to the 'systemic' linguistic theory of Halliday (1985), any part of a *text* will be simultaneously doing three things; it will be representing and constructing reality (the *ideational* function); it will be projecting and negotiating social relationships and social identities (the *interpersonal* function); and it will be setting up links with other parts of the text and with the context so that the whole is a text rather than a jumble of sentences (the *textual* function).

Research Methods

This paper subjects the position statement on HRD developed by the University Forum for HRD (UFHRD) in 1995 to a descriptive, interpretive and deconstructive 'critical discourse analysis' of the terms within which the definition was framed. The author of this paper is well positioned to do this since he produced the original draft of the UFHRD definition and was a member of the UFHRD workshop consisting of a mix of fifteen academics and practitioners that built on the original draft to produce the 1995 definition. Fairclough (op cit) refers to the importance of collecting supplementary data in analysing a text. This entails 'having a mental model of the order of discourse of the institution or domain one is researching, and the processes of change it is undergoing, as a preliminary to deciding upon where to collect samples.......The discourse analyst should depend upon people in relevant disciplines.....for decisions about which samples are typical or representative of a certain practice; whether the corpus adequately reflects the diversity of practice and changes of practice across different types of situation, and both normative and innovative practice' (p225). He goes on to say that 'there are various ways in which the corpus can be enhanced with supplementary data. One can, for instance, obtain judgments ...from panels of people who are in some significant relation to the social practice in focus'. The following analysis thus draws upon the comments of academics and practitioners associated with the UFHRD ,who were invited to provide email comments on the validity and utility of the statement in defining the HRD domain.

At the time it was written it was felt to be important to have an operational definition that described (and enclosed) the field. Why was this? Was this no more than an act of naivety by members of a new organisation that was trying to carve out a niche for itself?

Position Statement on the Emerging Concept of HRD

The scope of HRD

Just as many authorities see Human Resource Management as a synonym for Personnel Management, so a number of people see Human Resource Development as a synonym for Training and Development. Others see HRM as an umbrella term embracing all HR activities including personnel management, training and development and industrial relations. There is also a school of thought which further restricts the scope of Training and Development to the provision of learning opportunities for employees within a given organisation. These perspectives neither reflect emerging theory and practices on the subject of the scope of HRD nor on its relationship with HRM.

HRD as a process has been usefully defined by Patricia McLagan of the American Society of Training and Development as `the integrated use of training and development, organisation development and career development to improve individual, group and organisational effectiveness'. These three areas use development as their primary process. HRD as an emerging concept thus encompasses training and development but is not restricted to it.

The target for development opportunities has also been extended beyond the perimeters of a given organisation as activities are increasingly being outsourced and sub-contracted. Non-employee human resource development is concerned with enabling an organisation to influence its external environment through a planned process of learning so that the skills and knowledge of those outside its boundaries on whom it depends to a greater or lesser extent are enhanced.

Strategic HRD is an extension of the above. It puts particular emphasis on the development of comprehensive, co-ordinated and dynamic approaches for major learning initiatives within and outside an organisation in order to facilitate the achievement of all stakeholder objectives in a competitive and turbulent environment.

It is not helpful given this perspective to think of HRD as a sub set of HRM, either in structural or functional terms. As the strategic significance of organisational and individual learning as a source of competitive and co-operative advantage gains recognition, a strategic need arises for appropriately positioned `learning architects' with the distinctive competences and consultancy skills to orchestrate learning initiatives on behalf of their clients. They need to be seen as partners in the formulation of strategy as well as developers of `quality' people to deliver strategy.
University Forum for HRD 1995

Analysis

1. *Sociocultural Practice: Context*

The University Forum for HRD (UFHRD) is a collaborative network of some 30 universities, primarily from the UK , which promotes professionally focused qualifications and co-operative research and consultancy initiatives . Prior to its formation in the early 1990s there had been no academic community of interest pressing the case for HRD in the UK nor was the term HRD commonly used. This definition was developed in 1995 at a time when professionally oriented Masters programmes for advanced practitioners in HRD were beginning to emerge in the UK. Support for their development had been provided by the Institute of Training and Development (ITD) prior to the 1994 amalgamation with the Institute of Personnel Management (IPM) to form the Institute of Personnel and Development (IPD) - as of 2000 the Chartered Institute of Personnel and Development (CIPD). The intention had been to establish a national network of universities offering professionally (ITD) recognised Masters programmes across the UK and the initial impetus for the formation of the UFHRD was to facilitate this. The following criteria had been established by the ITD in conjunction with the UFHRD for the recognition of these programmes : providing participants with the analytical, research and process consulting skills and with the knowledge to incorporate HRD issues effectively into organisational overall corporate objectives and to manage change therein

including a sustantial research based project focused on real corporate, strategic or professional HRD issues, needs and developments within an actual organisation.
(UFHRD Development Group for Professionally Focussed University Programmes 1995)

The first programme using the above criteria was developed in 1991 by a small team which included the author at South Bank University in London. The first UK professor in HRD was established at Liverpool John Moores University in 1993 to provide research support to their new Masters programme which followed the ITD criteria..

There was a political dimension to the publication of the definition reflecting an anxiety amongst members of the Forum that the values of the larger IPM would swamp those of the smaller ITD in the newly merged IPD organisation. By far the majority of those members of the UFHRD involved in its production were from business schools in the UK, were involved in teaching post-experience part-time students, and were closely associated with colleagues who were teaching students studying for IPM professional qualifications. HRD was perceived by many of these colleagues as a synonym for 'Training and Development', as a subset of of the personnel management professional field, and therefore, in their world view, HRD did not have the same significance as HRM. Stewart and McGoldrick (1996 pvii) in describing their experiences at Nottingham Business School found 'a common view that HRD is generally, and unhelpfully, treated as unproblematic and a subject which is not considered with the seriousness it deserves within academia'. In the same text they further point out that the academic space for HRM within the UK was `well established, with a growing number of academic departments within universities, a range of dedicated journals for both academics and practitioners and a growing number of specialised HRM programmes on offer'.( McGoldrick and Stewart 1996 p10) . HRD was seen as `a relatively new concept which has yet to become fully established and accepted, either within professional practice or as a focus of academic enquiry' (Stewart and McGoldrick op cit p1).

Even the use of the term 'HRD' was a subject of ongoing contention, especially in the practitioner community where many felt uncomfortable with the negative associations of people being a `resource'. The comments of Oxtoby, expressed in 1992, are typical of a view still held by many.

'I hold the view that HRD should be eliminated from all official publications. The words 'Human Resource' reduce people to the same level of importance as materials, money, machinery and methods - which are also resources. People need to be distinguished as the world's greatest asset. HRD is without feeling for people. Who can define what HRD is? Those outside our profession must be confused, when those inside it cannot describe it in a consistent way. HRD is a phrase of the verbose. It takes three words to describe a process when one word is quite sufficient. The bleak prospect for the term 'HRD' may be summarised as: A fashionable flavour of the late 1980s and early 1990s which was promoted by those whose motives for the profession may have been reasonable - but which attempted to gain professional recognition and growth without an everyday feeling for people and their community: a lack of understanding that real growth comes from within the hearts and minds of ordinary people.' (Training and Development (UK) April 1992, quoted in Walton 1999)

2. *Textual Analysis*

Ideational Function and Terms: Nominalisations. At a descriptive level the textual analysis of terms is part of the *ideational* function, described by Fairclough and Hardy (op cit) as expressing our experience of reality and how we represent this.. One aspect of the ideational function is *nominalisation* – processes turned into nouns in the text. An example would be `management', which is used as a noun but represents the process of managing, or `organisation' which represents the process of organising. The text is full of such 'nominalisations', indeed they dominate it: Human Resource *Development*; Human Resource *Management*, Career *Development*; *Organisation Development* and so on. Fairclough and Hardy (ibid) go on to say that: `What gets lost when a process is nominalised are tense, modality, and a sense of the associated participants in the process. Who is organising? What are they organising? And who is being organised.? A preponderance of nominalisations can have ideological significance, that is these features may be being used in order to hide certain aspects of power or to strengthen presuppositions or taken-for-granteds'. (p148)

In this case the nominalisations were designed to function as labels which would help to create a sense of gravitas about the significance of the emergence of HRD as a field of study and to reinforce the ideological message of what the authors felt the domain consisted.

Interpersonal Function: Grammatical Mood and Modality. The *grammatical mood* represents the extent to which a text uses devices such as declarative sentences – typically statements – or asks questions. The *modality* reflects the degree of commitment to propositions made. As might be expected with a position statement the mood is declarative with a preponderance of categorical statements reflecting considerable affinity and commitment to the various propositions. There are no modal markers such as 'possibly' or 'perhaps'. Thus

'These perspectives neither reflect emerging theory and practices on the subject of the scope of HRD nor on its relationship with HRM.'.

'It is not helpful given this perspective to think of HRD as a subset of HRM either in structural or functional terms'

3. *Discursive Practice*

A *discourse* 'is a particular way of constructing or constituting some area of social practice, and there are usually alternative – and competing - discourses available' (Fairclough and Hardy ibid p147). In HRD there are many alternative discourses by which the domain has been interpreted, reflecting different fields of interest and targets for investigation, each competing for contested space, and representing different levels of generality. A number of these are reflected in the position statement, an even larger number are not.

The following are examples of competing discourses which have impacted upon HRD over the years, presented as a series of either-or questions.

- Is HRD a sub-set of HRM or an independent - albeit linked - domain?
- Is HRD a synonym for 'training and development' or something broader?
- Is HRD concerned exclusively with work related behaviour or does it encompass non work related skills?
- Is HRD concerned exclusively with adult learning or with learning from cradle to grave?
- Is HRD concerned with the acquisition of expertise or with learning in the round?
- Is HRD concerned primarily with individual learning or organisational performance?
- Should HRD be defined or not?
- Is HRD a body of practice or an academic field of study?
- Is HRD a function or a process?
- Is HRD concerned exclusively with intentional learning processes or does it incorporate accidental learning processes?
- Is HRD an extension of Training and Development with a specific orientation towards organisational learning interventions designed to improve skills, knowledge and understanding; or does it have wider, more holistic origins focusing on 'the interplay of global, national, organisational and individual needs'? (Stead and Lee 1996).

Overall the statement is far closer to Stead and Lee's position a) than to reflecting an 'interplay of global, national, organisational and individual needs'. There was also an implicit assumption amongst its framers that HRD should be defined. Given that prevailing value orientation this paper analyses in some detail the stance the paper takes on the first two of the competing discourses listed above.

The question of whether HRD is a subset of HRM is one which is particularly prominent in the position statement and which has featured strongly in the subsequents writings of those associated with the UFHRD definition. McGoldrick and Stewart (op cit) state that 'it is almost axiomatic that our argument contends that neither is a sub-set of the other but rather that each has its distinctive, albeit problematical, space in the analysis of contemporary organisations'. Walton (1999) believes that it is of some significance how we see the relationship between HRD and 'HRM' and 'personnel management'. 'To comprehend how HRD relates in a theoretical and practical sense to other areas which see people issues as their primary concern demands an awareness of what the terms 'HRM' and 'personnel management' mean. However, as with 'HRD' they are not precise constructs but represent complex, abstract and fluid concepts whose interpretation depends on the backgrounds and experiences of the users and on 'where they are coming from'. How they are understood can determine HR reporting and power relationships, career structures, functional divisions and job roles.' (p122).

The question of whether or not HRD is a synonym for Training and Development (T&D) is another issue that has figured high on the UFHRD agenda and which is addressed in the position statement. Comments made by the working group that finalised the UFHRD position statement included: 'Comparing HRD to old style T&D is asking the wrong question.' And : 'the role of old-style Training and Development provides a service to the Board alone. HRD perceives employees as customers and considers development part of the reward system'. The McLagan perspective that HRD could be defined as 'the integrated use of training and development, organisation development and career development to improve individual, group and organisational effectiveness' had gained a measure of acceptance in the US and reflected the ideological position of the authors. McGoldrick and Stewart (op cit) justified the inclusion of 'organisation development' on the grounds that a) both conceptual and empirical work in the USA supports the view of HRD as being concerned with organisational as well as individual learning; b) 'it suggests that HRD in common with HRM is strategic and processual as well as being practical and functional'; and c) 'what might be termed traditional training and development focuses attention on the latter, that is on activities which are the concern of professional practitioners and which reflect (merely – my inclusion) immediate and operational needs'. (p13).

It is worth commenting that even for those authorities who feel that the field of HRD is adequately defined by approaches such as McLagan's, there is some discomfort with the view that it can pretend to homogeneity. One of Ruona's sources stated: 'I think another issue is that there's a certain assumption that seems to come through that HRD is a unified field. I see huge differences between my colleagues who see themselves primarily as training experts and those who see themselves primarily as OD experts and those who see themselves as CD experts.' (quoted in Ruona op cit). The position statement does not reflect such uncertainties.

Recent Comments Received on the Position Statement: Ideologies, Thrusts and Biases

At the May 2000 Annual General meeting of the UFHRD it was agreed to circulate the position statement of 1995 to members, and ask for comments on its current usefulness . This followed an earlier (January) debate led by the author on how far HRD met the requirements of a discipline. The following analysis of two of the observations received reflects different ideologies, thrusts and biases – in other words alternative perspectives and power orientations on HRD discursive practice.

One of the contributors to the January debate contended that the current interest in giving credibility to HRD was no more than a group of academics trying to position themselves within the power structure of Universities.. In a letter sent to the UFHRD in advance of the debate he argued: 'What we are doing here is playing politics. What do we want HRD to become to further our own particular interests at this time? So we have a collective interest that can be mobilised around a particular story about what HRD might become?' (Megginson 1999). In a more recent communication he argued: 'Any 'definition' of a field is not a description of the world, but an exercise of power - with the intention of appropriating or excluding other definitions and those that hold them. It seems to me that our definition would be enriched by an acknowledgement that this is going on'. For any HRD definition the question is 'Whose interests will be served and how by defining HRD thus?' (Megginson D.F. 2000). He picked up the enxiety of the original framers of the 1995 position statement, arguing that 'the statement that 'it is not helpful to think of HRD as a subset of HRM'.......is indefensible except as a political ploy. Not helpful to whom, for what purposes? ......Those seeing control as a key task of HRM or those wanting to use competencies to link all HR activities would ...have a conceptual case for seeing HRD as a subset of HRM (not one that I support but nonetheless a case)'. (Megginson ibid)

Another set of comments reflecting a totally different ideological position and perception of the domain was received from Thames Valley University (TVU). For me the comments additionally brought to mind Iris Murdoch's impression, quoted earlier, that the transparency of language as a means of communication has gone. The TVU views are precised as follows.: 'We had concerns about the labels being used.. There seems to be great scope for confusion about the labels attached to this whole domain.. If we start from 'people' the domain of interest seems to be labelled as 'people management and development'; 'personnel and development'; 'people management'; 'training and development'; 'personnel'; HRM; HRD; 'organisation development'; 'career development'; and 'providing learning opportunities'. The position statement uses some of these labels and seeks to draw boundaries between them that we do not recognise. It suggests that T&D is a separate area from organisation development and career development and all are within HRD. It also states that HRD is separate from HRM yet organisation development and career development are certainly within HRM in our perception.

The use of 'resources' in relation to people working in organisations seems to be moving out of favour Our concern was that staying with HRD and HRM would seem to be backward looking for the professionals we are seeking to develop

There seems to be an emphasis in the paper on development in an organisation context. There have been significant moves towards developing the idea of individual responsibility for personal development. This is within lifelong learning, CPD and the decline of a career within within one organisation. The revisions should recognise a responsibility to support the development of the individual in their career terms as well as organisational needs. There seems to be an emerging issue of the selfish learner seeking to meet their learning needs independently of the organisational needs.

Other issues which we discussed were self-managed learning, e-learning, knowledge management, intellectual capital and emotional intelligence as an HRM issue for development. Concern for learning of people should extend to suppliers and customers as well as direct workers. High performance organisations need a strong learning culture that supports independent high performers who accept responsibility for their own learning and are provided with support.

We felt that the operation of individual organisations determines a differentiation between HRM and HRD. We felt that HRM has generally roots in a top down systems focus while HRD is concerned with the individual. Both areas need to be informed by learning theories and motivation and reward.

The conclusion was that the above illustrates the difficulty of trying to develop a definition when so many stakeholders are contributing from their different perspectives.' (Roscoe J. June 2000.)

Conclusion

Both in the US and in the UK the majority of comments from those involved in the definitional debate have related to the need for clarity and specificity. The majority of contributors have also seen the domain within an organisational context. The following quotation is taken from the Rouna (2000a) US study: 'If HRD doesn't define itself the *organisations* that HRD professionals work in will'. It could equally well have been made by many members of the UFHRD. At the January 2000 UFHRD debate the following quotation symbolised the case for clarity of definition and some consensus of perspective from the primarily UK audience. 'We are all professing `what is HRD'. If it doesn't make sense to us how can we explain it to others'..

What has perhaps been less well recognised is that any attempt at definition cuts across different ideological positions and can be perceived as an attempt to exercise power and control. The critical discourse analysis has demonstrated that it is undoubtedly the case that the UFHRD definition was an attempt at a political statement that reflected a particular ideological and power orientation. The ideological stance was clearly understood at the time. At the November 1995 UFHRD working group meeting that helped develop the statement one sub group concluded `Perhaps a need exists to address the question of why a statement/definition is needed and how it will help/serve the interests of different parties: eg managers, practitioners, academics.' A second sub group came to a similar conclusion: 'However who is the statement for? Academics teaching the subject or practitioners to inform their practice?' This group concluded : 'Both, as we would not wish to encourage/sustain the divide between academics and practitioners.' The power orientation was much more tacit and implicit.

Any attempt at influence is likely to run into resistance. To repeat the Ruona (ibid) quotation given in the introductory paragraph of the participant in her study who passionately argued against defining the field; 'Who needs a definition? .....It's only a problem if you are driven by trying to define your field and your expertise. I don't feel a need to do that.... Our field is strengthened by having different schools of thought and by its diversity......I don't need to control your definition and I'm certainly not going to let you control mine.' In turn this leads to counter-influence attempts as people try to present and project their own views of reality. To quote another contributor to the Ruona study: 'I don't think an individual can raise their core beliefs above a work group.....To think that you should have 10 different people in a department with a set of totally inconsistent and incoherent beliefs and functioning every day, I think is insane'. One inference to be drawn from this quotation is that where there are a group of people who claim to belong to a discrete field of study there must be some community of interest and common perspective that brings them together. Perhaps a more telling inference is that the contributor believes that for political reasons there is a need to present a common front, which in turn implies a measure of control. Perhaps the most significant conclusion to be drawn from the discourse analysis is : `What went into the UFHRD position statement, what was left out; who decided; and what was the basis of their authority?

Does all of the above matter? I believe it is of enormous significance. How academics frame the world governs what goes into syllabuses and thus what is taught/communicated to others. In the UK at the moment the CIPD is revisiting the whole of the syllabuses that constitute its professional qualification structure. Judgments are being made about what goes in and what stays out. Who makes those judgments and the way they present their claims will determine the content of learning for entrants into the profession for the next few years and in turn have enormous impact upon their world view.

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Developing the Employment Brand: Targeting MBA Campus Hires

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Employment branding benefits both individuals and organizations. It functions as a campus recruiting tool in a competitive labor market and communicates the organization's values and work environment to potential applicants. Individuals may be more or less attracted to an organization depending on the extent to which their personal work values are similar to those of the organization. The steps in developing an employment brand are discussed.

Keywords: Employment Brand, Campus Recruiting, Work Values

Attracting top talent is one of the biggest challenges facing organizations today. Not only because of the decreasing size of the workforce but also because of the increased competition for the same talent pool. There are a number of trends that threaten a wide-ranging shortage in talent. Baby boomers are beginning to retire in large numbers and the cohort group moving in to take their place, the 35-44 year-olds in the U.S., will decrease by 15% between 2000 and 2015. A survey of over 6,000 corporate executives revealed that 75% said their companies had insufficient human resources and that this talent shortage was hindering their ability for continued growth (Chambers, Handfield-Jones & Michaels, 1998). Compounding the labor shortage problem is an increase in competition for workers. A booming economy has given rise to a large number of small and medium-sized companies. These companies are targeting the same people as the larger firms and are proving to be fierce competition because of their greater opportunity for impact and wealth. Added to this equation is the Department of Labor's prediction that the number of white-collar jobs will increase over the coming years. This is why it is important to stand out in the marketplace and present a unified company image to job candidates.

More and more companies have implemented targeted campus recruiting efforts specifically aimed at hiring MBAs, with some campuses seeing a 40% increase in recruiting activity. Employer image on campus is important because it provides an identity which functions as an attractor for potential MBA applicants. Based on Tajfel's (1978, 1981) social identity theory (SIT), social identification is the perception of membership to some human collective or group. Some principles of social identification are relevant in explaining why individuals identify with organizations and their subsequent attraction to them. The first is that identification is a perceptual cognition not necessarily related to any behaviors or affective states and the second is that individuals personally experience the successes and failures of the group (Foote, 1951). Social identity theory maintains that identifying with specific social categories, such as an organization, enhances one's self-esteem (Tajfel, 1978). Positive employer images are important to job seekers because of the sense of pride they expect on being associated with the organization. People tend to accept jobs at these organizations because of the potential that this association has to enhance their self-esteem (Ashforth & Mael, 1989).

In evaluating organizations for possible employment, job seekers usually have limited information (Rynes, 1991). Because it is difficult to obtain adequate information about the numerous aspects of a job before joining an organization, job seekers will use whatever information is available. Several studies on applicant attraction to firms have found that the amount of information provided positively influences attraction to the organization (e.g., Rynes & Miller, 1983). Individuals may use employer image as additional information in evaluating an organization and the components of the job. Just as consumers use brand images as signals about the quality of a product (Shapiro, 1983), applicants use employer images as signals about job characteristics.

An individual's employing organization is an important aspect of his or her social identity (Ashforth et al. 1989). When a person joins an organization, it makes a statement about the person's values (Popovich & Wanous, 1982). Values are conceptualized as relatively stable individual characteristics, over which organizational socialization is unlikely to have much influence (Lusk & Oliver, 1974). Research on work values is based on the premise that they are derived from people's basic value systems (George & Jones, 1997). A value system is "an enduring organization of beliefs concerning preferable modes of conduct or end-states of existence along a continuum of relative importance" (Rokeach, 1973, p. 5). Values are important because they guide behavior and

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provide individuals with criteria against which to characterize their work experiences (Lewin, 1951). Work values are a fundamental aspect of the work experience because they define the meaning that people derive from work, jobs and other organizational experiences (James & James, 1989).

Research on the effects of work values and job choice decisions demonstrates that individuals are more likely to choose jobs whose value content is similar to their own value orientation (Judge & Bretz, 1992). This suggests that the applicant's perception of the attractiveness of an organization may depend on the values that are emphasized within the organization.

Schein (1990) says that dominant themes emerge for each person in the form of critical skills or abilities the person wants to employ or critical needs or values that govern one's orientation towards life. As time goes on, the self-concept begins to act as a guidance system and as an "anchor" that constrains career choices. He defines the career anchor as part of one's stable self-image and is "the one element in a person's self-concept that he or she will not give up, even in the face of difficult choices" (p. 18).

MBA Campus Hires

The incoming labor force, known as Generation X, has a number of distinguishing characteristics that need to be taken into consideration in developing an employment brand. This group has been affected by divorce (40% come from broken homes) and the result is very independent and self-reliant individuals. They are known as the "Entrepreneurial Generation" and have started businesses at more than twice the rate of other American cohort groups. They saw the effect of downsizing on their parents. Because of this they have little or no company loyalty and tend to change jobs frequently. They grew up with racial, ethnic and religious differences and thus are comfortable with diversity. They have a more pragmatic view of employment and feel that by working "smarter, not harder" people can live satisfying lives without sacrificing everything for a career.

In order to be effective, the brand has to be relevant to what the job candidate is seeking. The best way to understand these characteristics is to conduct surveys of MBAs to find out what they most highly value. According to Universum's survey, topping the list are inspiring colleagues, work/life balance, competitive starting compensation, dynamic management and a variety of tasks and assignments. With information about the target group, the brand can then be targeted at the interaction between those characteristics that the company possesses and the characteristics sought by MBA hires.

Employment Branding

Organizational identity is comprised of a shared understanding of the central and unique characteristics of the organization, which can be manifested in qualities such as values and beliefs, mission, structures and processes, and organizational climate (Albert & Whetten, 1985). The SIT literature suggests that the degree to which an organization can differentiate itself from others by providing a unique identity is a way to increase identification. Cable and Turban (2000) demonstrated that recruitment image is positively related to job seekers' evaluations of job characteristics, thus applicants use employer images as signals about job characteristics.

Because of increased competition and the current labor shortage, companies that do not distinguish themselves from their competitors are at a significant disadvantage when it comes to recruiting top people. The question is how a company distinguishes itself from its competitors. The answer lies in "employment branding" – the process of identifying what is unique about a company and marketing it to a target population. Branding has traditionally been used to refer to the process of marketing products. The lessons and principles of product marketing can be used to build and manage an employment brand. Employment branding is the establishment and cultivation of a substantive and unique impression in the minds of target applicants (Buss, 1988). It is a process that enables an organization to define and articulate its distinctive employment proposition relative to the competition. Comprised of the package of functional, economic and psychological benefits identified with the employing company (CLC, 1998), a brand is basically a promise to applicants regarding what it will be like to work for a company. The end game is to ensure that applicants have a clear perception of a company's employment value proposition. In developing a brand, a company is essentially building an ownable position in the marketplace that will provide it with a real competitive advantage in attracting talent to the organization. The relationship between the company and its applicants is based on trust and loyalty generated by consistent delivery of the brand promise (Kahler Holliday, 1997). A company creates its brand over time with strong consistent positioning, packaging and performance. Organizations see the branding of their employment offer as similar to the branding of a product in the marketplace. In this case, the labor market.

The employment brand is comprised of a number of attributes, each of which contributes to the strength of the brand. There are 12 dimensions that constitute the overall employment offer (Clemson, 1998): reward system; post employment; external reputation and awareness; policy and values; fairness and cooperation; corporate culture; communication; recruitment and induction; performance management; development; work environment; vision and leadership.

These twelve factors are taken into consideration in developing the employment brand. Branding is a process built from internal and external strengths as well as job applicant perceptions. If a company does not know its benefits and weaknesses from an employment perspective, the brand will not be based on reality. And if the brand is not based on reality it will not deliver on its promise to applicants. Therefore, in order to be effective, the employment brand must be based on research. Branding is the end point, not the starting point, of the process (Kahler Holliday, 1997).

Developing the Brand

The marketing of a brand is, essentially, making a promise to the applicant that his or her experience will match what is being marketed. In order to meet MBAs' expectations, branding needs to be based on solid research.

The first step in branding involves conducting a competitor analysis. This includes looking at the web sites and recruiting materials of the organization's close competitors (within and outside of the industry) and listing their employment attributes. Competing employment offers should be analyzed to understand what is being offered to job candidates and how it differs from a company's own offer in order to carve out a niche in the labor market. Competitors must be monitored constantly because branding is a statis process. Competitors are continually introducing their own branded employment offers and can use their messages to reduce the effect of other companies' brand value. It is also helpful to obtain the same information that MBAs use in making their job choice decisions (e.g., independent company reports such as Job Vault). The second step is to conduct focus groups of recent campus hires (within the past two years) in the organization to find out the employment value proposition being offered. This is the ideal group because they are familiar with what MBAs want and they are still new enough to the organization to be able to describe the culture. The third step is to conduct individual interviews with recent hires and past summer interns to get additional in-depth information. It is also helpful to ask these individuals about the perceptions of other companies' employment offers. Experienced hires are interviewed to determine what a longer-term career with the company may look like and how to market this to prospective applicants. The fourth step is to obtain any existing survey data that may be available, such as a values survey or employee opinion survey.

The data is then analyzed by company division (if applicable), by data source (focus groups, interviews) and by competitor. A summary of the findings across the sources is compiled to develop a list of common themes that will begin to articulate the attributes of a company's employment offer. The themes are used to develop a tag line and supporting message that encapsulate the employment brand. The tag line should be strong enough to convey something fundamental about the organization. Different functions or departments of the organization should be able to use the tag line and feel it is relevant. It should be vague enough to allow a number of different interpretations so that it is universally appealing.

Employment branding is not about identifying the target group and then changing the brand content to become something the target candidate wants. It is about identifying what the company has to offer, letting the target group know about it and then figuratively asking the candidate if he or she is interested in being a part of that organization. The brand will show candidates how the company is different and will communicate the subtle aspects (e.g., culture, values, quality of coworkers) of what it is like to work there.

Companies should view the packaging of their employment brand in the same manner in which they package their products or services. Part of the branding process consists of using a logo, tag line and supporting visuals to reflect the company's message. The packaging should be consistent across marketing materials (e.g., web site, brochures) in order to continue to build and reinforce the brand. Part of the packaging also includes the candidate's contact with the company. The message should be visible in every point of contact with the candidate – from initial communication to final round interviews. If a candidate sees that the company does not "live its brand" in any of these interactions, then the integrity of the company's message will be called in to question.

Conclusion

Employment branding can function as a recruiting tool that establishes a clear idea in the minds of job applicants as to what an organization is, what it stands for, and what it will provide for them. Just like traditional product marketing, the employment offer must meet applicant preferences, be differentiated from competing offers and have a strong reputation. Branding involves the creation of an indelible impression on job applicants through branded interactions with them. The impression is meant to be lasting and can build loyalty to a particular company when an applicant is evaluating his or her employment offers. A strong employment brand can be key to attracting talent in a competitive labor market. It is a way for companies to stand out from their competitors and can serve as a symbol that attracts immediate attention in the job market. Creating a brand requires a balance of applicant perceptions and wants, current company employment strengths and potential positionings within the competitive labor market. Building a brand now will ensure a stronger labor market position in the future.

Companies spend substantial effort to market their products but not nearly enough on marketing the company to prospective employees. Branding dollars need to be looked at as an investment in the future of the company and in the value of the employment brand. The aspects of the company that affect the brand need to be integrated in order to work together and deliver on the brand's promise to applicants.

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Learning-Action Strategies of Project Managers in a Collaborative Learning Program: An Action Research Project into the Learning Activities of Project Managers

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This manuscript describes a study concluded in August 2000. The main question in this study is which learning action strategies are used by project managers within a learning program. The findings of the research at a Training and Consultancy Center (TCC) will be discussed. Individual and cooperative learning action strategies of project managers are viewed from the framework of the learning network theory. This theory is described below.

Keywords: Action Research, Collaborative Learning, Managers

The Learning Network Theory

The learning network theory (Van der Krogt, 1995; Poell, 1998; Poell & Van der Krogt, 2000a), centers on learning individuals and learning groups within their learning network and labor network. A learning network describes how learning is organized. A labor networks describes how work is organized. Both networks ranging from a liberal, vertical, horizontal, to an external network.

The learning program theory describes, amongst other things, in what ways a learning coach can organize learning programs, based on insights into and knowledge about the labor and learning networks of the learners. A learning program is created by learning workers, who decide to learn, more systematically than in daily work situations, with a group of colleagues about a theme relevant to their own professional development and to their work, and who obtain legitimacy and means for their activities (Poell & Van der Krogt, 2000a).

The theory includes four theoretical types of learning program: a liberal, a vertical, a horizontal and an external learning program (similar to the four types of learning networks distinguished by Van der Krogt, 1995). All of these contain specific arrangements about the content and the organization of learning programs.

A liberal learning program is characterized by contractual and individual orientated learning. Individual learners create their own unique learning program through organizing learning activities. The learning group in which these individuals take place is intended to be of surplus value to each individual learner.

A vertical learning program is characterized by linear planning of learning activities by a learning coach. A learning group agrees to enrol in a pre-designed learning program based on and corresponding to organizational policy. The learning coach takes full responsibility in responding to learners' learning styles and in the promotion of learning program effectiveness.

In a horizontal learning program a learning group functions as a semi-autonomous team, solving a complex and shared work problem. The learning coach adjusts his contribution in the learning program to the various needs of the learning group. Each valuable contribution and all the various insights, modes of expertise and qualities of all participants are utilized equally to generate the best manageable solution.

In an external, innovative learning program professionals learn about externally-designed innovations and methods. The profession's insights, knowledge, norms, and codes are translated to and tried out in the work activities of professionals. The outcomes of the learning program are then transferred to the professionals with the cooperation of continuing education institutions.

In learning programs various types of learning activities are combined, which makes each program unique. Various learning activities are related to various work contexts. In other words each learning group creates their own program specific to the organization. Obviously the learning programs differ with regard to their content. The content profile is completely adjusted to the progressive formulation of the work problem by the participants and the progression of the program.

In defining or facilitating learning program creation it is important and valuable for the learning coach and the participants to gain knowledge about the existing learning network and labor network. This knowledge will

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support the coach to use the most suitable strategy in organizing that particular learning program to increase transfer of knowledge into work situations. A strategy of a coach, in turn, can fit closely to the existing networks. It is also possible, and moreover in some situations tactical, to choose deliberately a different type of learning program in order to stimulate innovative developments in the learning network and the labor network of an organization.

Problem Statement and Research Questions

This study is based on the following main question:

How are learning programs related to the existing learning and labor networks of an organization?

Based upon this main question the following specific research questions were examined:

1a. How can the labor network of the organization be characterized?
1b. How can the learning network of the organization be characterized?
2a. Which learning activities do the participants conduct, both individually and cooperatively?
2b. Which learning action strategies do the participants use?
2c. How can the learning program (in terms of theoretical types of learning programs) be characterized?

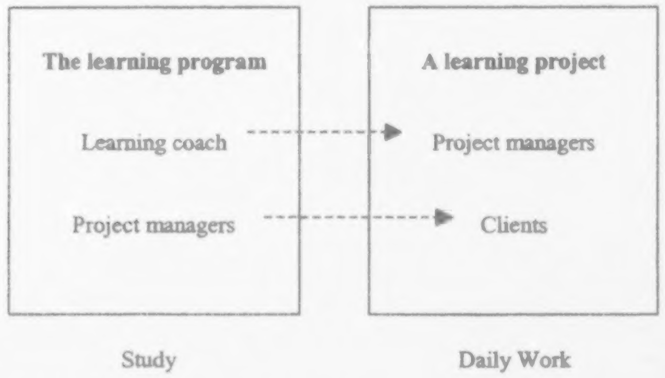
Design and Research Method

The method used for this study was an action research approach. A learning program was organized together with five project managers in a Training and Consultancy Centre (TCC).

Project managers at TCC organize various learning projects for clients. TCC occupies itself with consultancy, training, courses and supervision.

In this learning program, both the project managers and the learning coach learned about organizing projects.

Figure 1. The visualization of the roles of the participants in the learning program, compared with the roles of these participants in learning projects in daily work.



The learning program and its constituting learning activities undertaken by the project managers were examined through an action research approach. Characteristic of this approach is its cyclical course. Information gained during a meeting, was analyzed and the results were returned frequently to the project managers in order to improve the organizational structure and content profile of the learning program. Then, again, information was gained in the next meeting.

This action research consisted of two main parts of research.

Part one was defining the existing learning and labor networks of the organization with the participants. Based upon this knowledge the learning coach planned a strategy together with the project managers to organize the actual learning program. Part two was examining the learning activities undertaken and exploring the strategies of the participants underlying these activities.

1. The information about the learning network and the labor network at TCC was collected using the following methods:

- Analysis of documents, reports and internal papers;
- Analysis of visualizations of the learning and labor networks created by the participants.

The information was recorded in extensive protocols which were analyzed in terms of the learning network theory. The learning network and labor network of the organization were thus given a preliminary characterization, which was then discussed in the learning group.

2. The information about the learning activities and underlying learning action strategies was collected using the following method:
3. Reflective feedback sessions at the end of all plenary meetings in the learning program, in which the learning activities of the learners, both individual and cooperative, were discussed explicitly.

The information was recorded in extensive protocols which were analyzed in terms of the learning program theory. The learning program was thus given a preliminary characterization, which was then discussed in the learning group.

Results

In order to answer the main question of the study the two specific research questions were answered first.

The Labor Network

The labor network of TCC was characterized as a liberal labor network and to some extent as an external labor network. The project managers act as autonomous individuals in the organization. They organize their own work based on requests from customers to organize various projects. Each project is unique, has unique content profiles and its own structure. The project managers organize these projects independently and use their own work-action strategies.

The labor network is to some extent an external network, which means that project managers, when interested and motivated, let innovations and new insights from various domains of knowledge influence their work-action strategies and their norms and values. The 'profession of project managers' is rather powerless.

Within the organization stimulated by the management, to a large extent, there is a tendency towards a vertical labor network. Knowledge is codified in various procedures. Again, the employees use these procedures only pragmatically.

The Learning Network

The learning network of TCC can be characterized as a liberal, unstructured learning network. With the situation as it stands, the project managers take responsibility in undertaking their own learning activities, which results in a wide range of learning action strategies being employed. The requests of the costumers are the most important motives behind learning. In this situation constant motivation and a willingness to learn are preconditions for actualizing knowledge and anticipating developments in the work field.

In the learning network also, management is encouraging various developments. To make use of all the available, mostly implicit, knowledge by all employees, management facilitates learning in heterogeneous learning groups. In terms of the learning network theory this tendency can be characterized as verticalization/horizontalization.

Strategy of the Learning Coach

The analysis of the learning network and labor network resulted in two characterizations and insights about possible developments in the networks. As things stand both networks are to a large extent liberal networks.

Considering these outcomes and the developments desired by management, the learning coach decided to follow a horizontal learning program strategy. He aimed for a semi- autonomous learning group resolving a collective work problem together in the learning program. Continuously the learning group would negotiate about problem-solving strategies, ideas and solutions. All participants would agree to collective decisions.

During the course of the learning program the coach stimulated the project managers to assess the content profile of the program and with it find out in what ways the content could be learned best. In that connection the five project managers indicated how the coach could best connect his role to these ways of learning desired by the learning group.

During all the plenary meetings the coach explicitly brought 'unusual' learning activities to the attention to inspire the project managers. For example, prepare a conversation for acquisition together and acquire the instruction together, and reflect on the conversation to increase one's skills in acquiring.

Learning Activities

All meetings ended with a brief period of reflection. In these moments the learning in the learning program by all participants was brought to the attention, as well as the learning activities during the plenary meetings and afterwards. The learning activities concerned both individual and cooperative activities.

With regard to the learning activities mostly individual learning activities were found. The project managers utilized the plenary meetings to learn together about organizing learning programs, exchanged various insights, knowledge, experiences and developments and discussed about frequent work problems, barriers, and strategies. Knowledge and insights gained were used in their own practice in order to improve their own expertise and professional qualities. It never occurred to the project managers to use knowledge and new insights gained in learning situations in the workplace, neither individually nor cooperatively. The project managers prepared the learning topics individually before entering the plenary meetings.

The learning strategy used by the project managers can be characterized as independent, self-directed learning.

As for cooperative learning activities it is noticable that the project managers in this specific learning program did not undertake any activities cooperatively.

There is a difference between learning together and learning cooperatively. The project managers learned together during the meetings but they never discussed a theme in order to give the findings a real try-out, reflect on it, learn and give it a try again.

In daily work, learning cooperatively happens more frequently. The learning-action strategy they used is characterized by starting with an experienced (collective) work problem.

Circumstances which interfered with cooperative learning are lack of free time, outdoor work, pressure of work calendars filled with appointments with one's costumers and employees working part time.

Management decided to arrange for eight fixed office days in order to facilitate cooperative activities.

The learning program at large can be characterized a liberal learning program. The program was systematically organized by the learning coach. The horizontal learning program he intended changed, under the influence of the actions of the project managers in the learning program, into a more liberal learning program.

Reasoning through the learning program certainly experienced a great influence by the powerful liberal networks of TCC.However, the project managers learned a lot about organizing projects with their clients. They gained a useful set of dos and don'ts and points of special interests concerning the organization of learning programs.

Conclusion

This study contributes to new HRD knowledge in several ways.

This study has yielded insights into the relation between learning programs and existing learning and labor networks of an organization. The strategy of the learning coach, although connected to the existing learning and labor networks and their developments, was influenced strongly by the learning action strategies of the participants. Obviously these learning action strategies, and the existing learning and labor networks, were dominating over the strategy of the coach. Thus, for the learning coach who is organizing learning programs, it is important to be aware of this phenomenon. The theoretical framework is useful to point this out and correct the strategy of the learning coach in (the nick of) time.

The second contribution lies in the experiences gained with the action research method.

Action research, compared to 'traditional' ways of research, is a labor-intensive way of doing research. On the other hand there are these is intensive interaction with and great involvement of the learning group. The learners in turn learn actively. It is obviously not a learning process to the researchers only. The final outcomes are fully endorsed by the participants and transferred within the organization by these employees.

Third, the use of the learning network theory has yielded new insights into the organization of workplace learning programs.

The last contribution to HRD knowledge are new insights in the relation between learning programs and existing learning networks and labor networks. The study has brought us one step further in the direction of a method to organize learning programs well adjusted to the way work and learning are organized in a particular organization.

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Trainer Certification: Research In the Real World

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The ibstpi Standards provide the foundation for trainer certification programs. For some, successful completion of this certification examination is a requirement for employment while failure may lead to job termination. Credentials bearing the authority to determine employment or employment selection are assumed to be sound and legally defensible--legitimate. To ensure legitimacy—validity—of certification credentials, content validity is required. This paper discusses the questionable methodology by which these credentials are validated.

Keywords: Professional Certification; Trainer Certification; Content Validity

Introduction

Professional certification is one way of communicating to "someone" that an individual is allegedly competent in "something." Certification programs provide an avenue for many professionals and practitioners who work in a multitude of occupations and industries to convey to potential employers and clients that they exercise efforts to "keep up" with the changes and advancements in their area of expertise. To be "certified" suggests accountability, proficiency, professionalism, and status—all good reasons to support certification programs. Nevertheless, commanding widespread respect and credibility requires certification programs to be meaningful and built with substance—validated substance.

As the world of professional certification grows at a seemingly exponential rate, legal, professional, and ethical ramifications must be considered. Specifically, professional industrial trainers (such as technical or professional development trainers) are frequently required by their industry or employers to be "certified" instructors. Here, certified may mean that the trainer must have a credential that qualifies them to train in a specific content area. Or, it may mean that the trainer has earned a credential that communicates their ability to instruct and facilitate learning. In some situations, employers require their trainers to be certified in both content area and in instructional practice. In any case, to most people, the word "certified" is interchangeable with the word "competent."

Competence is typically based on what is considered to be accepted standardized practice or knowledge. Methods used to measure competence are often variable, subjective and situational. Nevertheless, recognized certification examinations designed to measure the level of one's competence do exist and are based on established standards. When a specific certification (e.g., trainer certification) becomes a requirement for employment, a recruitment tool, or at the very least, a "strongly recommended credential," the stakes for the certification test taker become extremely high. Passing or failing the examination may mean the difference between employment or unemployment, recruitment or not, promotion or demotion. In this light, certification takes on a meaning that goes beyond building one's portfolio or adding something to the resume. It becomes a matter of survival. One would assume that the standards on which this type of certification program/examination is based have been established through rigorous activity and sound research methodology. Certification examinations are frequently subject to legal scrutiny and must ensure that the content is valid, accurate information.

Validating certification program/test substance (content) requires empirically sound research. Here, the methodology must be in tact. Components such as sampling techniques, sample identification, sample size, and rate of response are critical. If any of these components are not managed appropriately or become problematic in any way, a study becomes flawed and the results corrupt.

Standards, Competencies, and Trainer Certification

The *ibstpi Instructor Competencies (The Competencies)* serve as the basis of established industrial trainer certification programs. The empirical quality of the research and methodology employed to validate *The*

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Competencies for the purpose of certification test development and implementation is questionable. *The Competencies* were established by the International Board of Standards for Training Performance and Instruction (ibstpi) and "...are a result of research into available literature, internal corporate documents, observations, peer reviews, and evaluation" (ibstpi, 1993, p. 2). "The *Instructor Competencies* define the generic instructor role, independent of settings and organizations" (ibstpi, 1993, p. 2). To date, these standards have not been tested under rigorous empirical scrutiny for content validity or to determine whether or not they are a global representation of instructor competencies necessary for successful instructor-led-training by country or by culture.

Content validity. The *Standards for Educational and Psychological Testing (SEPT)* (1985) is a comprehensive technical guide that provides criteria for the evaluation of tests, testing practices, and the effects of test use. The application of the *SEPT* (1985) to credentialing programs such as trainer certification programs is appropriate and necessary. The *SEPT* (1985) were developed jointly by the American Psychological Association (APA), the American Educational Research Association (AERA), and the National Council on Measurement in Education (NCME). The guidelines presented in the *SEPT* (1985) have, by professional consensus, come to define the necessary components of quality testing. As a consequence, a testing program that adheres to the *SEPT* (1985) is more likely to be judged valid and defensible than one that does not.

The two categories of criteria within *SEPT* (1985) are primary and secondary. Those standards classified as primary "should be met by all tests . . . . unless a sound professional reason is available to show why it is not necessary, or technically feasible, to do so in a particular case. Test developers and users . . . are expected to be able to explain why any primary standards have not been met" (AERA, APA, & NCME, 1985, p. 2). One of the primary standards is that the content domain of a certification test should be defined in terms of the importance of the content for competent performance in an occupation. "Job analyses provide the primary basis for defining the content domain" (p. 64).

The validation process known as job analysis (also known as role delineation, practice analysis, or functional analysis) is used to define the content domain as a critical component in establishing the content validity of certification examinations. Content validity is the primary validation strategy used in these examinations. It refers to the extent to which the content covered by an examination overlaps with the important components of a job (tasks, knowledge, and/or skills) (Arvey & Faley, 1988).

Demonstration of content validity is accomplished through the judgments of subject-matter experts. The process is enhanced by the inclusion of large numbers of subject-matter experts who represent the diversity of the relevant areas of expertise (Ghiselli, Campbell, & Zedeck, 1981; Tannenbaum & Wesley, 1993). The lack of a well-designed job analysis is frequently cited (by the courts) as a major cause of test invalidity (Kuehn, Stallings, & Holland, 1990).

Validation research based on job analysis methodology refers to the process designed to obtain descriptive information about the tasks performed on a job and/or the knowledge and skills thought necessary to adequately perform those tasks (Gael, 1983). The specific type of information collected for a job analysis is determined by the purpose for which the information will be used. For purposes of developing certification examinations, a job analysis should identify the important knowledge or skills necessary to protect the public (AERA, APA, & NCME, 1985) – the public here being defined as the consumers of services or products provided by professionals, such as instructors (trainers). In addition, well-designed validation research should include the participation of various subject-matter experts (Mehrens, 1987; Tannenbaum & Wesley, 1993); and the data collected should be representative of the diversity within the job. Diversity refers to regional or job context factors and to subject-matter-expert factors such as race/ethnicity, experience, and gender (Kuehn et al., 1990).

Questionable Research: Case in Point

In a recent examination of *The Competencies*, the proposed methodology to conduct the "content validity" study was to be a survey of 500 randomly chosen subject-matter experts. A job analysis survey was developed and piloted. The targeted sample was to consist of domestic and international professionals in academic and business & industry fields. Specifically, respondents were asked to include a cross-section of professionals who specialized in the areas of instructional practice, design, development and delivery. Survey respondents were to be asked whether or not the competencies defined by *The Competencies* are exemplary of those decisions, actions and behaviors that competent instructors must demonstrate to complete an instructional assignment successfully.

Eventually, instead of following the originally planned methodology, the survey was posted on two Websites and was made available to passersby at various international conferences which attract primarily technical trainers and industrial training vendors. Through this form of convenience sampling, data were collected for approximately one year. Less than 100 (96) surveys were completed and documented.

Convenience sampling is an inappropriate sampling technique for this type of study. A form of non-probability sampling, convenience sampling consists of a group of individuals that is ready and available. Here, the sample is opportunistic and voluntary participants may be unlike most of the constituents in the target population (Fink, 1995). This form of data collection presents numerous limitations and yields weak, biased, and potentially counterfeit information. Moreover, by posting this survey on marketing Website, it is impossible to be certain of who the survey takers are.

A low response rate, flawed sampling and inappropriate data collection methods corrupt these data bringing question to the validity of the standards as certification test content.

Conclusion

Certification program are everywhere. Training and HRD professionals are being presented with opportunities to become certified in virtually every area of the field. To certify or not to certify--that is only one of the questions. Certification opponents may dislike the existence of this type of credentialing practice, but their objections have not stopped the excessive growth. Proponents aid in the development and growth of this now lucrative "industry," but may not be fully aware of the existing weak foundations. The proponent side of the issue may, in fact, contribute to the existing problems by not questioning or researching the foundations of the programs they support.

In all fairness, the ibstipi Standards do make sense as basic guidelines. They are an adequate representation of generic instructional practices. However, they lack sound empirically based substantiation on which to build certification programs that are widely recognized in industry and have been deemed critical and essential in the field of training and instruction.

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Adult Learning and the Internet

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Adults voluntarily learning to use the Internet through the eBay auction process are demonstrating adult learning related to technology in the real-world. This study describes the learning strategies used by 380 eBay users. The findings reveal that learners using critical thinking skills are attracted to the Internet, that Internet use leads to differing attitudes about skill and self-concept changes, and that learning strategy groups approach learning on the Internet very differently.

Keywords: Adult Learning, Internet, Learning Strategies

Periods of change offer tremendous opportunities for learning. This is especially so for computers and the Internet. Recently in an interview on CNBC, an executive for an investment advising firm made the analogy that the world is currently in the third inning of the new ball game brought about by the Internet. If this analogy is correct, then one player in the game that has strong pitching and large crowds is eBay. eBay is the world's largest personal online trading community as a result of creating a new market of efficient one-to-one trading in an auction format on the World Wide Web. Individuals use eBay to buy and sell items in more than 1,600 categories including such areas as collectibles, antiques, sports memorabilia, computers, toys, and jewelry. eBay provides over two million new auctions and 250,000 new items every day from which users may choose. The mission of eBay is to trade practically anything on earth while treating each of its customers with respect. To facilitate this, eBay encourages its members to interact via e-mail and has a feedback system in which both buyers and sellers can post comments about their dealings with each other.

eBay was launched on Labor Day of 1995. Immediately, it began to attract a volume of customers, and today it has over 12 million registered users. While many formal learning organizations are still talking about the need to teach computer literacy courses or about the need for teaching people about the Internet, it is clear that a large number of adults around the world have initiated self-directed activities to learn how to not only get on eBay but also how to participate in its interactive features. A review of the posted auctions and the feedback comments reveals a wide range of literacy levels, keyboard skills, and creativity by eBay users. Because this is a new area of learning and because it is informal in nature, adult educators have not yet investigated the learning strategies that participants are using for this type of adult learning. However, the knowledge of the learning that is taking place in this informal setting is crucial to educators that hope to train adults on similar types of technology for use in formal settings. Computers and access to the Internet have become pervasive. Learning how to use this technology is no longer an option for those in the modern workforce, and those responsible for carrying out this training need to know how adults learn to use this technology. In order to investigate how adults voluntarily go about this learning process in a real-world setting, the purpose of this study was to describe the learning strategies that adults use in learning to engage in the eBay auction process. The study utilized the following research questions: (a) what are the identified learning strategy preferences of adult learners using eBay, (b) how do adult learners describe their learning experiences related to the eBay auction process, and (c) how they feel about their computer skills and self-confidence as a result of participating in the eBay auction process.

The Internet

"The Times, They are A-Changin'": These prophetic words from Bob Dylan's 1964 song are truer now than any time in recent history. Not since the Agricultural and Industrial Revolutions have so many changes affected so many people in such a short period of time. This accelerated eruption and transmission of data is dramatically remolding, recasting, and shrinking the global community. Frequently called the Information Revolution, Information Age, or the Age of Technology, this metamorphosis of data gathering and exchange is rapidly creating a new single-market world. This new world is a world of computer-based knowledge which stretches from living rooms to corporate headquarters. It is changing the way people communicate among themselves personally and the way they conduct business.

Just as previous revolutions inalterably changed people's ways of life over time, the current revolution is transforming the daily source, volume, and quantity of information that is available at a lightning-quick pace. This massive change has come in an incredibly short time. For the last quarter of this century, these rapid and revolutionary changes have created anxiety in society as "new trends and technologies flash before us with each click of the mouse" (Cahoon, 1998, p. 71).

The core component of the Information Revolution is the Internet. Commonly known as the World Wide Web or the Information Superhighway, the Internet is a mass conglomeration of multidirectional communication networks. Although the Internet began in the U. S. as a federally-funded research project, the 1980s and 1990s have seen a dramatic increase in commercial network providers. The majority of today's Internet is composed of private networking agencies located in educational institutions and government organizations (Cerf, 2000).

Use of this network is expanding so quickly that calculating global Internet participation is nearly impossible and is out of date as soon as it is published. In such a fast growing market, reporting precise numbers of online participants worldwide is not an exact science. It is subject to change daily. The Internet is "the fastest growing technology in history" (Taylor, 1999, p. 1). Over one-half the homes in the United States are online with 90% of those utilizing the Internet regularly (p. 1). There are currently.362.97 million users of the Internet worldwide.

The dynamics of this new technology have not only changed the way information is disseminated, but it also is changing how people communicate with each other. Internet use is exploding and people are constantly being exposed to a whole new era of new terminology. Global economy, telecommuting, e-commerce, e-mailing, networking, http, and html are but a few of the words and phrases which have taken on new or expanded meanings today. Many sentences seem to end with the words ".dot com". Information is e-mailed, downloaded, attached, data synched, faxed, and linked. Internet users browse, surf, online conference, and chat. They meet, discuss, conference, and inform call online. They exchange e-mail addresses, web sites, business news, and personal information. Instead of the "tune out and turn on" of the 1960s, today's trendy people "logon" or "logoff". Internet users travel through cyberspace to cybercafes, home pages, and websites to visit with one another.

This new technological revolution has given rise to a new form of literacy known as computer literacy. Just as literacy may be defined as the ability to read and comprehend written language, computer literacy is defined as "the knowledge and an understanding of computers, combined with the ability to use them effectively" (http://www.duboismarketing.com/computer.html, p. 1). Computer literacy may also be described as "digital literacy", which is "the ability to access networked computer resources and use them" (Gilster, 1997, p. 1). Literacy in the Information Age simply requires developing new skills to merge onto the Information Superhighway.

The Internet has changed the way people interact with technology. In the United States, people have grown accustomed to television which calls for passive behavior by the observer. However, Internet users have become interactive participants with much more responsibility in the hands of each individual. "We have never had the means of connecting so many people with so powerful a set of tools" (Gilster, 1997, p. ix). A world of information is available to Internet users with the click of a computer mouse. Often separated by great distances, people may now access each other with the ease and affordability of global e-mail.

As a result of growing computer accessibility, developing technology, and increasing global Internet participation, a new subgroup of World Wide Web users has emerged. This group consists of Internet users known as online auction traders. These buyers and sellers of items on Internet auction sites make up a major segment of the growth of the Internet (http://www.ebay.com). They engage in commerce using state-of-the-art technology as they buy and sell goods through an Internet auction house. The largest group of high-tech traders is found on eBay, the world's largest Internet auction site (http://www.ebay.com).

Since its creation in 1995, over 60 million auctions have been completed on eBay. In January of 2000, the average daily number of visitors to the eBay site set a new Internet record of 1.782 million (http://www.ebay.com). Each day, 6.5% of all Internet users across the world visit eBay's site to buy, sell, browse, or chat with other operators (http://www.ebay.com). The learning that is taking place on eBay by these 12 million subscribers demonstrates the basic principles of adult learning.

Adult Learning

Adult learning is the process by which adults interpret and give meaning to significant experiences in their lives. Knowles (1970) laid the foundation for the understanding of adult learning when he pointed out that adult learning is based upon the four assumptions that (a) adults have a self-concept of being responsible for their own decisions, (b) adults have a vast reservoir of experiences to use and build upon in a learning activity, (c) adults learn to satisfy needs in their evolving social roles, and (d) adults are problem-centered in their learning (p. 39). Later he added that adults need to know why they need to learn something before undertaking the learning and that the most potent motivation is internal (Knowles, et al., 1998, pp. 64-68).

Thus, adults apply their learning in real-world situations (Fellenz & Conti, 1989, pp.3-4). At the heart of this learning process is the development of each learner's awareness and capacity for effective self-monitoring and active reflection (Smith, 1991, p. 11). Involving the learner in this process includes participation in planning, conducting, and evaluating learning activities (Smith, 1976, p. 6). This learning-how-to-learn process allows adults to "learn on an ongoing basis in everyday, real world situations" (Kitazawa, 1991, p. 31) so that they can control and make sense out of their life experiences. This real-life learning is "relevant to the living tasks of the individual in contrast to those tasks considered more appropriate to a formal education" (Fellenz & Conti, 1989, p. 3). Real-life learning is the ability to learn on a recurring basis in every day, real-world circumstances. This learning occurs from the learner's real-life conditions and requires a comprehension of such "personal factors as the learner's background, language, and culture as well as social forces such as poverty and discrimination" (p. 25). Significant differences exist between learning for real-life problems and for those found in formal education (Sternberg, 1990).

Adult educators have focused on the concept of learning strategies as a means of understanding individual differences related to real-life learning. Learning strategies address solving real problems involving metacognitive, motivation, memory, critical thinking, and resource management. Learning strategies are those techniques or specialized skills that the learner has developed to use in both formal and informal learning situations (McKeachie, 1988). They are "the techniques and skills that an individual elects to use in order to accomplish a specific learning task....Such strategies vary by individual and by learning objective" (Fellenz & Conti, 1989, pp. 7-8).

Learning strategy research with adult learners has led to the identification of three distinct groups of learners. These have been labeled Navigators, Problem Solvers, and Engagers. Navigators are focused learners who prefer a well-planned, structured learning environment complete with feedback that allows them to monitor their progress and remain on course (Conti & Kolody, 1999, pp. 9-11). Problem Solvers are learners who rely heavily on the critical thinking strategies of generating alternatives, testing assumptions, and practicing conditional acceptance. Problem Solvers prefer a learning environment that promotes creativity, trial-and-error, and hands-on experimentation (pp. 11-13). Engagers are passionate learners who operate from the affective domain with a love for learning and who learn best when actively engaged in the learning in a meaningful manner. Personal growth, increase in self-esteem, helping others, and working as part of a team for a worthwhile project are emotionally rewarding to Engagers and will motivate them to embark upon and to sustain a learning experience (pp. 13-15). The Navigators and Problem Solvers initiate a learning task by looking externally to themselves at the utilization of resources that will help them accomplish the learning. Engagers, on the other hand, involve themselves in the reflective process of determining internally that they will enjoy the learning task enough to finish it (pp. 18-19).

Methodology

Using the long-established principle in architecture of Frank Lloyd Wright that form and function should be compatible, this study used the information and data collection advantages of the Internet to collect data about how adults learn using the Internet. eBay posts the results of each auction after the auction is completed. This includes a list of all people who bid on an item along with the person's eBay user identification name. These names are linked to the person's e-mail address and history with eBay. A representative sample of 380 eBay users was identified by electronically downloading the e-mail addresses of auction participants of completed sales between August 15, 1999, and January 30, 2000. The auctions were stratified by the 12 categories of eBay. During the sample identification process, eBay added a new category, and that category was also included in the study. Several subgroupings exist within each category. Therefore, one subgroup with a high volume of auctions was selected within each category. Within that subgroup, high volume auctions were selected in which the final sale price of the item was under $10, between $11 and $100, and over $100. This provided a sample in which various levels of financial commitment were involved.

Data were gathered electronically. Each participant's address was captured electronically from the public domain areas of the eBay website and downloaded into an Excel structure. A questionnaire was developed using Front Page and uploaded to an America On-Line account. Those identified in the sample were e-mailed a request to participate in the study. The participates clicked on the Internet address in the e-mail message that took them directly to the questionnaire. Participant responses were recorded electronically in files linked to the questionnaire. These files were automatically e-mailed to the researcher's account and then downloaded directly into the researcher's personal computer for analysis.

The sample of 380 participants approximated the 384 statistically suggested for a 95% confidence level for a study with a population the size of eBay (Mitchell & Jolley, 1988, p. 302). The gender distribution of the sample was nearly equal with 188 males (50.1%) and 187 females (49.9%); only 5 participants did not report their gender. The group was fairly well educated; the highest educational level of nearly one-fourth (23%) was a high school diploma, of one-fifth (20%) was a post-secondary degree or certificate, of nearly one-third (30.5%) was a bachelor's degree, an of one-fourth

(25.1%) was a graduate degree. Only five (1.4%) had less than a high school diploma, and these respondents were young enough to still be in school. The respondents ranged in age from 13 to 70 with a mean of 41.08 and a median of 43. Responses were received from 8 countries in addition to the United States; these 15 responses came from Australia (2), Canada (6), Germany (2), Denmark (1), Finland (1), Mexico (1), Russia (1), and United Kingdom (1). Although eBay has an international membership, the respondents were overwhelmingly White (93.3%); non-White ethnic origins were as follows: African--.3%, Asian--1.0%, Hispanic--1.7%, Native American--1.0%, and Other--2.7%. Also, the responses were mostly from sites that indicated that private individuals participated in the study. Over nine-tenths (93.1%) were from e-mail addresses that ended with .com (58.7%) and .net (34.35); the remaining responds were sent from .edu (3.6%), .org (1.5%), .us (1.5%), and .gov (.3%).

Findings

Both quantitative and qualitative data were collected using the questionnaire. Most questions were open-ended while a few were responses to identified choices. Imbedded within the questionnaire was *A*ssessing *T*he *L*earning Strategies of *A*dul*tS* (ATLAS). This instrument is a valid means of identifying a person's learning strategy preferences and places learners in the categories of Navigators, Problem Solvers, or Engagers (Conti & Kolody, 1999). The respondents were asked to describe their learning activities on eBay and to rate their skills and attitudes related to computers and the Internet as a result of participating in the eBay auction process. Descriptive statistics were used to summarize the ratings, and chi square was used to compare the observed frequency of the learning strategy responses for the eBay users to the expected learning strategy norms on ATLAS. The qualitative responses were analyzed to discover emerging themes related to the questions. In addition, the responses were analyzed using the constant comparative method (Merriam, 1998) to identify patterns in the responses for each of the three learning strategy groups.

The participants in the study use the Internet extensively. The average number of hours that they spend per week on the Internet had a mean of 20.08 hours and a median of 15 hours. Approximately half of this time is spent on eBay with a mean of 10.04 hours and a median of 6 hours.

Learning Strategy Groups

The findings revealed that there is a connection between the Internet and the type of learners attracted to it, and they described how learners apply their general learning strategy preferences in specific learning projects on the Internet. Although the three learning preference groups identified by ATLAS exist in nearly equal portions in the general adult population, a disproportionately large number of the group that relies on critical thinking skills use eBay ($X^2=30.3$, $df=2$, $p=.001$). The distribution on ATLAS in the general population, which was the expected distribution for this study, is as follows: Navigators--36.5%, Problem Solvers--31.7%, and Engagers--31.8% (Conti & Kolody, 1999, p. 18). However, the observed distribution in this study was as follows: Problem Solvers--45.2%, Navigators--28.5%, and Engagers--26.3%. Thus, there are a greater number of Problem Solvers using eBay than the other learning strategy preference groups. Problem Solvers rely on the critical thinking skills of testing assumptions to evaluate the specifics and generalizability within a learning situation, of generating alternatives to create additional learning options, and of embracing conditional acceptance of learning outcomes while keeping an open mind to other learning possibilities.

ATLAS is a relatively new instrument, and its authors are collecting data to further confirm its validity (Conti & Kolody, 1999). Data were collected for this purpose and also to confirm that ATLAS was appropriate for those in the eBay sample. After having their learning strategy preference identified by ATLAS and reading a description of this definition, the participants were asked if this description was fairly accurate in describing them as learners. Overwhelmingly, 90.6% confirmed that the description by ATLAS accurately described them. This finding of an accurate description for 9-out-of-10 respondents is consistent with other findings for ATLAS.

Attitudes

Participants were asked a series of questions to uncover their attitudes concerning communications on eBay, their computer skills, and their confidence using computers and the Internet. In order to increase the personal nature of its website and business process, eBay encourages bidders, buyers, and sellers to interact via e-mail. eBay has instituted a feedback system in which buyers can post ratings and comments about the seller, the quality of the item purchased, and the quality of the communication and interaction with the seller. Likewise, the seller can post comments and evaluations about the buyer. These comments are important to sellers if they are to continue to sell products on eBay. A review of the messages posted on eBay reveals that a large volume of civil and courteous communication takes place through these messages that facilitates the auction process. Messages from respondents and the personal experiences of the researchers support this overall view of the importance of the e-mail communication process in making the use of eBay more personal. Therefore, participants were asked questions concerning their use of e-mail in connection with eBay.

Quantitative questions concerning the use of e-mail on eBay used a 5-point Likert scale. More than half used e-mail Very Much (33.6%) or Much (20.8%) to communicate with other eBay users; slightly over one-fourth used it Some (26.7%), and about one-fifth used it Seldom (14.4%) or Never (4.5%). Over four-fifths found this communication Extremely Positive (33.7%) or Positive (50.1%). Most of the others viewed it as Neutral (14.8%) with only an extremely small number finding it either Negative (.5%) or Extremely Negative (.8%). Thus, most used and were very satisfied with e-mail as a means of improving the use of eBay.

Participants were also asked to rate their computer skills and to rate how they have changes as a result of using eBay. Almost all of the participants had average or better computer skills; nearly three-fourth had Very Good (38.4%) or Good (33.1%) skills; almost one-fourth had About Average (24.2%) skills. Very few of the eBay users considered their computer skills Poor (3.8%) or Very Poor (.5%). Perhaps because they had good computer skills before using eBay, many did not feel that their computer skills had increased greatly as a result of using eBay. While nearly one-third saw Some (32%) improvement and one-fourth saw Much (14.2%) or Very Much (11.35), a little less than half saw Little (19.4%) or Very Little (23.1%) improvement. However, nearly three-fourths felt that using eBay has increased their research skills in finding out about things Very Much (15.8%), Much (19.5%), or Some (35.8%) while about one-fifth felt that it has helped only Little (16.3%) or Very Little (12.6%).

Since experience with the use of a technology has the potential to increase one's confidence in the use of that technology, participants were asked about changes in their confidence levels related to themselves and to their ability to deal with others, with the use of computers, and with the use of the Internet. Although educators hypothesize that positive experiences such as the application of technology in successful situations such as eBay will lead to increased self-confidence in most people, the participants' responses did not reflect this enthusiasm. Their responses for all these items shared a similar pattern: approximately half expressed little change, slightly over one-fourth saw some change, and less than one-fourth experienced much change. Their responses for increased self-confidence were as follows: Very Little (31.7%), Little (21.8%), Some (31.1%), and Much (15.4%). Their responses for increased ability to deal with others were as follows: Very Little (23.9%), Little (21%), Some (32.5%), Much (14.8%), and Very Much (7.8%). Their responses for increased ability to use computers were as follows: Very Little (28.6%), Little (20.8%), Some (27.8%), Much (15.1%), and Very Much (7.8%). Their responses for increased ability to use the Internet were as follows: Very Little (25.2%), Little (22.5%), Some (26.3%), Much (16.9%), and Very Much (9.1%).

Learning on the Internet

Participants were asked a series of open-ended questions related to their learning on the Internet using eBay. They typed their responses into scroll boxes on the Internet that allowed them to enter as much information as they desired. When the participants submitted their form, their responses were sent to the researchers in an e-mail message. These responses were copied to the Microsoft Windows clipboard, transferred to a word processor, and then read into a Microsoft Assess program. The responses for each item were copied to a word processor file. Each response was tagged with the respondent's ATLAS score and the demographic information of age, gender, education, and race.

The following questions were used to generate the qualitative data.

1. How did you learn about eBay?
2. Describe the learning process you used to get started on eBay.
    a. How did you learn about getting your account started?
    b. Once you had your account started, how did you go about learning what was on eBay and about the different parts of the eBay web page?
3. Describe a typical session that you have on eBay.
4. Think about an auction on eBay in the past 6 months that interested you and that you took action to learn more about it.
    a. Describe how you went about learning more about the item.
    b. Describe how you went about learning more about the people involved in the auction
    c. Describe how you went about learning more about the any other things related to the auction.

Participants learned about eBay in a variety of ways. The respondents described that their beginning of knowledge about eBay came from such sources as different forms of media, advertisements, Internet activities, and other people. While their method of learning may have varied, it was clear that eBay was pervasive and its use was widespread.

Participants in the three ATLAS groups differed in the ways they learned about eBay. Navigators relied on advertisements, other collectors, and television personality Rosie O'Donnell to learn about eBay. Problem Solvers regarded co-workers and listed Internet activities as their sources of knowledge about eBay. In addition, Problem Solvers were much more likely to detail specific examples of how they learned of eBay than their Navigator or Engager counterparts. Engagers tended to report that their friends were the source of their acquaintance with eBay while Navigators and Problem Solvers were more likely to list relatives as their source of learning about the auction site.

Of the people participating in the eBay study, most listed following eBay's directions as the way they learned about getting their accounts started. While some read the eBay information and others went directly to attempted bidding, 56% of all respondents said they learned about becoming an eBay user by direction-following.

Navigators were more likely than Problem Solvers or Engagers to surf eBay's website or use the search options. Problem Solvers chose to give explicate combinations of sources when describing how they learned about registration. Aside from following eBay's registration directions, Engagers chose to go directly to the bidding process or read eBay's instructions to become users.

People participating in the eBay study reported that they went about learning what was on eBay web page by using an assortment of methods. While some browsed or searched the website, others relied on trial-and-error or a combination of resources available. Almost three-fourths (74.3%) of the participants browsed, searched, used trial-and-error, or used the website features to discover the different eBay parts.

Distinct differences between the ATLAS groupings were discovered. Navigators were more than seven times more likely to use their own logic to learn about the eBay website than their Problem Solver or Engager counterparts. Problem Solvers relied on a combination of sources, trial-and-error, and specific examples when answering the question. Engagers were more than twice as likely to go directly to eBay's search engine than were Navigators or Problem Solvers.

To describe a typical session on eBay, the participants used methods that were grouped into the eight basic categories of checking current auctions, browsing, giving detailed examples, executing predetermined plans, searching keywords or items, using a combination of strategies, or varying their sessions to meet their needs. Navigators were more likely than Problem Solvers or Engagers to browse eBay and use calculated plans during a typical session while Problem Solvers more often chose to vary their sessions and give detailed examples than people in the other two groups. Engagers tended to go straight to their current auction sites or search for specific items of interest.

In order to learn more about eBay auction items, the participants used an array of methods. While some briefly mentioned reading the item description or viewing the item picture, others progressed into intimate details and elaborate examples. Some relied on outside resources such as the auction item seller, the Internet, or reference books while others depended on their own knowledge.

Navigators were much more likely to use the Internet while researching information about items and were more apt to make use of outside sources such as reference books, catalogs, and trade journals than were Problem Solvers or Engagers. Problem Solvers tended to offer more detailed examples of their learning experiences than the Navigators and Engagers, and they were much more likely to depend on their own current knowledge to come to their aid. Engagers chose to merely look at the item descriptions or pictures or to use a brief listing of a combination of techniques which usually included other people.

Responding eBay users described the methods they used to learn more about the other people in the auctions in several ways. The most common response to how the study participants learned more about other eBay users was the Feedback Forum (35.1%). This was followed by a combination of techniques (25.7%) and detailed remarks about their experiences (13.8%). Others used auction histories (4.4%), e-mail (3.6%), eBay's About Me pages (1.7%), and outside sources (1.1%). Some (6.6%) reported that they either did not learn more about other people or that others were insignificant in the eBay process.

Learning strategy groups showed some differences and a few similarities in the way they went about learning more about other eBay people. While all three ATLAS groups used eBay's Feedback Forum, almost one-half of the Navigators used the feedback evaluations as compared to 29.4% of Problem Solvers and 29.5% of Engagers. The Problem Solver participants continued to give more detail and information than was expected.They were three times more likely than Navigators or Engagers to give detailed remarks in their answers to this request. Although Engagers made up only 26% of the respondents, close to half of the people who used their instincts while learning more about other eBay people were Engagers.

When asked to describe how they went about learning more about things other than auction items or people, the participants chose several categories of responses. While some chose not to respond or could not comment (28.5%), others responded from eBay's website (16.6%), by conducting research (10.2%), by reporting that they learned about other aspects of the auctions from other people (9.7%), by offering detailed examples or comments (8.8%), by trial-and-error (5.5%), and by a combination of sources (5.0%).

Differences existed between people identified in the three ATLAS groups. Although most (22.3%) relied on the eBay site itself for information, Navigators were more than three times as likely as Problem Solvers and were twice as likely as Engagers to read the item description or view the item picture when learning additional information about eBay. Problem Solvers tended to use a combination of sources to learn more than their Navigator or Engager comrades but were almost twice more apt to give detailed comments or advise to theresearchers or other eBay users than either the Navigators or the Problem Solvers were. Although Engagers made up only 26% of the people responding, 38.9% either chose not to answer the question or found it difficult to answer. The most popular source for additional eBay information for Engagers was other people.

Conclusions

Several conclusions can be drawn from the findings. The learning strategy findings are congruent with and complement other on-going studies in the area. In another study using the Internet, Spencer (2000) found a disproportionally large number of Problem Solvers. Engagers have been found in a disproportionally large number in adult basic education programs (James, 2000) and in community colleges (Willyard, 2000); both of these educational entities have an image of focusing on the learner's self-concept and individual needs. In contract to these, the Internet has an image of fostering individual exploration and self-directed activities. Resources seem endless of the "web" and "surfing" produces limitless learning opportunities. This image is ideal for the learning strategy preferences of Problem Solvers. Thus, even though learners are equally distributed throughout the society, they tend to gravitate toward learning situations that are compatible with their approach to learning. This occurs even though most learners have not consciously thought about or tried to label their approach to learning. Each training organization needs to be aware of the image that it projects. It may be subtlety projecting messages that are posing barriers to some learners.

The findings confirm that ATLAS is useful and accurate for identifying the learning strategy preferences of adult learners from diverse settings. Learners can benefit by being aware of how they learn and of how this learning relates to the other general categories. Classroom experiences in the adult basic education, community college, and university settings shows that increasing learners' metacognitive levels concerning their approach to learning helps them in their own learning and in interacting with both the instructor and others in the learning situation. This awareness can help them better understand new and different learning situations and learning organizations.

Learning strategies can be learned. Once those in charge of facilitating the teaching-learning transaction are aware of the various elements in the curriculum and the organization, they can incorporate training related to the needed strategies so that all learners can be successful. The adult education situation should be a place where learners can either apply the lifelong learning skills that they have already learned or learn new ones that they need (Smith, 1982). Equipped with a knowledge of the learning strategies of the participants and image of the organization, more efficient learning experiences can be planned.

In their qualitative responses, all groups were able to clearly describe elements of their learning on eBay that exemplified and gave meaning to their learning strategy group as identified by ATLAS. Although some used eBay as a way to improve their technical computer skills and self-concept related to computers and the Internet, most viewed engaging in eBay as simply an application of existing skills. The human interaction fostered by the e-mail function associated with eBay was an important element for many in maintaining their use of eBay.

This study has implications for researchers in terms both of its findings and methodology. Much of the research on adult learning investigates learning in formal settings. Yet, the work of Tough (1976) and others shows that a major portion of what adults learn takes place in self-directed learning projects outside of formal educational settings such as with eBay. Moreover, Knowles' (1970) concept of andragogy stresses that adults learn for immediate application. The type of learning that is taking place on eBay fits these criteria. Learning more about how adults learn related to this modern technology can provide insights into the overall learning process. Also, electronic communications offer new ways for researchers to conduct their projects. Since this project is rooted in learning on the Internet, the characteristics of the Internet were incorporated into the research design. The techniques used for identifying a sample, posting a website questionnaire, contacting respondents, and analyzing data can be helpful to other researchers as they venture into this area.

Effective training of the workforce necessitates training related to computers and the support system which makes them such a powerful information tool. Trainers are presently designing and will continue to include programs that both teach people how to use this technology and how to integrate this technology into their jobs. Learners clearly approach this learning differently based upon their preferred learning strategies. They differ in the types of resources they prefer to use for this learning, in how they utilize these resources, and in how they feel, talk, and think about these resources. Likewise, they view the benefits, power, and tools of the Internet differently and therefore incorporate them in diverse ways in their learning. Trainers can utilize this understanding of how adult learners naturally incorporate these learning strategy differences into their real-life learning on the Internet to improve the efficiency of technology training in formal settings.

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